

Số: 826/NMĐSH1-KTATMT

Hậu Giang, ngày 29 tháng 04 năm 2025

V/v cung cấp báo giá “Vật tư thay thế C&I  
(Hệ thống BOP) năm 2025”

**Kính gửi: Các nhà cung cấp**

Chi nhánh phát điện Dầu khí/Nhà máy Nhiệt điện Sông Hậu 1 (NMNĐ Sông Hậu 1) đang có nhu cầu triển khai mua sắm “Vật tư thay thế C&I (Hệ thống BOP) năm 2025”. NMNĐ Sông Hậu 1 đề nghị Quý Công ty quan tâm, nghiên cứu và cung cấp báo giá cho hàng hóa nói trên với nội dung như sau:

1. Phạm vi công việc:
  - Danh mục hàng hóa: như Phụ lục Đính kèm;
  - Hàng hóa mới 100%, bảo hành tối thiểu 12 tháng;
  - Sản xuất từ năm 2024 trở lại đây hoặc nhà thầu đề xuất (có thư xác nhận của nhà sản xuất).
  - Các vật tư/thiết bị nhà thầu chào phải có tài liệu của nhà sản xuất, CO và CQ hoặc các tài liệu có giá trị tương đương cung cấp bởi nhà sản xuất/Cơ quan có thẩm quyền;
  - Nhà thầu báo giá dựa trên xuất xứ của phụ lục: “Danh mục hàng hóa”, trong trường hợp vật tư/thiết bị có nguồn gốc xuất xứ khác thì phải có thư xác nhận của nhà sản xuất.
2. Tiến độ cung cấp: Nhà thầu đề xuất tiến độ tốt nhất để Nhà máy xem xét.
3. Địa điểm giao hàng: Nhà máy Nhiệt điện Sông Hậu 1, Ấp Phú Xuân, Thị trấn Mái Dầm, Huyện Châu Thành, Tỉnh Hậu Giang.
4. Hiệu lực báo giá: 90 ngày kể từ ngày chào giá.
5. Thời gian gửi báo giá: trước 17h00 ngày 20/05/2025.
6. Phương thức gửi báo giá: gửi trực tiếp/bưu điện theo địa chỉ tiếp nhận báo giá hoặc qua email, fax.

7. Thông tin liên hệ:

Người nhận: Phòng KTATMT - NMNĐ Sông Hậu 1.

Địa chỉ: ấp Phú Xuân, thị trấn Mái Dầm, huyện Châu Thành, tỉnh Hậu Giang.

Email: haipdm@pvpgb.vn; khoitm@pvpgb.vn; tientn@pvpgb.vn; hanhbx@pvpgb.vn; giangtth@pvpgb.vn; nhanbaogia.hn@pvpgb.vn.

NMNĐ Sông Hậu 1 cảm ơn sự hợp tác của Quý Công ty.

**Nơi nhận:**

- Như trên;
- Giám đốc Nhà máy (để b/c);
- Phòng: TM, KHTC;
- Lưu VT, KTATMT (T.N.T).

**TL. GIÁM ĐỐC CHI NHÁNH PĐDK  
KT. GIÁM ĐỐC NMNĐ SÔNG HẬU 1  
PHÓ GIÁM ĐỐC**



Nguyễn Văn Chính

**PHỤ LỤC - VẬT TƯ THAY THẾ C&I (HỆ THỐNG BOP) NĂM 2025**  
(Đính kèm văn bản số **226** /NMĐSH1-KTA TMT ngày **29/04/2025**)

| STT | Tên vật tư/mô tả                     | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|--------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 1   | Synchronization module               | 6ES7960-1AA06-0XA0          | Synchronization module V6 for patch cable to 10 m<br>Input current<br>+ Current consumption, max: 220 mA<br>Power loss, typ: 0.77 W<br>Dimensions<br>+ Width: 13 mm<br>+ Height: 14 mm<br>+ Depth: 58 mm                                                                                                                                                                                                                                                                                                                                                          | Siemens      | Châu Âu/OECD/ASEAN | 6        | cái    |         |
| 2   | Màn hình điều khiển                  | A47833-1                    | - Part Number: A47833-1<br>- Phải tương thích về kích thước lắp đặt, kết nối, điều khiển cho Máy cấp than Model 496-48-G của hãng Merrick hiện hữu tại nhà máy nhiệt điện Sông Hậu 1                                                                                                                                                                                                                                                                                                                                                                              | Merrick      | OECD               | 2        | cái    |         |
| 3   | Digital output module                | 6ES7322-1HH01-0AA0          | Digital output SM 322, Isolated 16 DO, relay contacts, 1x 20-pole                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Siemens      | Châu Âu/OECD       | 4        | cái    |         |
| 4   | Analog output module with HART       | 6ES7332-8TF01-0AB0          | SIMATIC DP, HART analog output, SM 332, 8 AO, 0/4 - 20 mA HART, for ET200M with IM153-2, IM 153-2, 20-pole Functions: FW update, HART auxiliary variables, redundancy, local diagnostic buffer with time stamping.                                                                                                                                                                                                                                                                                                                                                | Siemens      | Châu Âu/OECD       | 1        | cái    |         |
| 5   | Evaluation unit for speed monitoring | DD2503                      | + Nominal voltage [V]: 27 DC (typ. 24 DC)<br>+ Voltage tolerance [%]: -20...+10<br>+ Sensor supply [V]: 19.6...27.7 DC SELV, ≤ 15 mA<br>- Inputs:<br>+ pnp/npn; NAMUR (24 V)<br>+ auxiliary supply: typ. 24 V DC / 15 mA; short-circuit protected;<br>+ input frequency (max): 5 kHz (corresponds to min. pulse length / space 0.1 ms).<br>Outputs:<br>- Relay contact rating: 6 A (250 V AC); B300, R300<br>- Transistor outputs: pnp; external supply switching voltage/current: 24 V DC / max. 15 mA; short-circuit protected.<br>- Analog output: 0/4...20 mA | IFM          | Châu Âu/OECD/ASEAN | 1        | cái    |         |
| 6   | Regulated power supply               | 6ES7307-1EA01-0AA0          | Regulated power supply, input: 120/230 V AC, output: 24V/5 A DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Siemens      | Châu Âu/OECD       | 1        | cái    |         |
| 7   | Regulated power supply               | 6ES7307-1BA01-0AA0          | Regulated power supply input: 120/230 V AC, output: 24V DC/2 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Siemens      | Châu Âu/OECD       | 3        | cái    |         |

| STT | Tên vật tư/mô tả               | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                          | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|--------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 8   | Relay                          | 40.52.9.024.5000            | Part No: 40.52.9.024.5000                                                                                                                                                                                                                  | Finder       | Châu Âu/OECD       | 3        | cái    |         |
| 9   | Interface module               | 6ES7153-2BA70-0XB0          | SIMATIC DP, interface DP/PA-Link and ET200M IM153-2 HF for extended temperature range for max. 12 S7-300 modules with redundancy capability, Timestamping suitable for isochronous mode                                                    | Siemens      | Châu Âu/OECD       | 3        | cái    |         |
| 10  | Central processing unit        | 6ES7512-1SK01-0AB0          | CPU for ET 200SP, Central processing unit with Work memory 300 KB for program and 1 MB for data, 1st interface: PROFINET IRT with 3-port switch, 48 ns bit performance, SIMATIC Memory Card required, BusAdapter required for Port 1 and 2 | Siemens      | Châu Âu/OECD       | 1        | cái    |         |
| 11  | Interface module               | 6ES7545-5DA00-0AB0          | CM PROFIBUS DP for ET 200SP CPU module with PROFIBUS DP interface (9-pole D-sub socket) DP master for 125 DP slaves DP slave                                                                                                               | Siemens      | Châu Âu/OECD       | 1        | cái    |         |
| 12  | Memory card                    | 6ES7954-8LF03-0AA0          | MEMORY CARD FOR S7-1X00 CPU/SINAMICS, 3,3 V FLASH, 24 MBYTE                                                                                                                                                                                | Siemens      | Châu Âu/OECD       | 2        | cái    |         |
| 13  | BaseUnit                       | 6ES7193-6BP20-0BA0          | BaseUnit BU15-P16+A10+2B, BU type A0, Push-in terminals, with 10 AUX terminals, bridged to the left, WxH: 15 mmx141 mm                                                                                                                     | Siemens      | Châu Âu/OECD       | 8        | cái    |         |
| 14  | BaseUnit                       | 6ES7193-6BP20-0DA0          | BaseUnit BU15-P16+A10+2D, BU type A0, Push-in terminals, with 10 AUX terminals, New load group, WxH: 15 mmx141 mm                                                                                                                          | Siemens      | Châu Âu/OECD       | 6        | cái    |         |
| 15  | Digital fail-safe input module | 6ES7136-6BA00-0CA0          | Electronics module for ET 200SP, F-DI 8x 24 V DC HF, 15 mm width, up to PLE (ISO 13849-1)/ SIL3 (IEC 61508)                                                                                                                                | Siemens      | Châu Âu/OECD       | 3        | cái    |         |
| 16  | Analog fail-safe input module  | 6ES7134-6JD00-0CA1          | Analog input module, AI 4xRTD/TC High Feature, suitable for BU type A0, A1, Color code CC00, channel diagnostics, 16 bit, +/-0.1%, 2-/3-/4-wire                                                                                            | Siemens      | Châu Âu/OECD       | 4        | cái    |         |
| 17  | Digital input module           | 6ES7131-6BF00-0BA0          | DIGITAL INPUT MODULE, DI 8x 24VDC STANDARD, FITS TO BU-TYPE A0, COLOR CODE CC01, MODULE DIAGNOSIS                                                                                                                                          | Siemens      | Châu Âu/OECD       | 5        | cái    |         |
| 18  | Digital output module          | 6ES7132-6BF00-0BA0          | DIGITAL OUTPUT MODULE, DQ 8x24VDC/0.5A STANDARD, FITS TO BU-TYPE A0, COLOR CODE CC02, MODULE DIAGNOSIS                                                                                                                                     | Siemens      | Châu Âu/OECD       | 4        | cái    |         |
| 19  | Analog input module            | 6ES7134-6GD00-0BA1          | Analog input module, AI 4xI 2-/4-wire Standard, suitable for BU type A0, A1, Color code CC03, Module diagnostics, 16 bit, +/-0.3%                                                                                                          | Siemens      | Châu Âu/OECD       | 2        | cái    |         |
| 20  | Analog output module           | 6ES7135-6HD00-0BA1          | Analog output module, AQ 4xU/I Standard, suitable for BU type A0, A1, Color code CC00, Module diagnostics, 16 bit, +/-0.3%                                                                                                                 | Siemens      | Châu Âu/OECD       | 3        | cái    |         |
| 21  | Memory card                    | SDSDB-032G-P36              | - Model :SDSDB-032G-P36<br>- Dung lượng: 32 GB.                                                                                                                                                                                            | Sandisk      | Châu Âu/OECD/ASEAN | 1        | cái    |         |
| 22  | CB                             | 5SY4106-7                   | Miniature circuit breaker 230/400 V 10kA, 1-pole, C, 6 A, D=70 mm                                                                                                                                                                          | Siemens      | Châu Âu/OECD       | 3        | cái    |         |
| 23  | CB                             | 5SY4110-7                   | Miniature circuit breaker 230/400 V 10kA, 1-pole, C, 10A, D=70 mm                                                                                                                                                                          | Siemens      | Châu Âu/OECD       | 3        | cái    |         |
| 24  | Auxiliary switch               | 5ST3010                     | auxiliary switch, 1 NO+1 NC for miniature circuit breaker 5SL, 5SY, 5SP Incorporated switch 5TL1, RCBO 5SU1, FI 5SV                                                                                                                        | Siemens      | Châu Âu/OECD/ASEAN | 6        | cái    |         |
| 25  | Controller                     | 773100                      | Configurable safety system PNOZmulti base module expandable, 20 safe digital inputs, 4 safe semiconductor outputs, 2 safe relay outputs.                                                                                                   | Pilz         | Châu Âu/OECD       | 1        | cái    |         |

| STT | Tên vật tư/mô tả                | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|---------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 26  | HMI                             | 6AV2123-2GB03-0AX0          | Basic Panel, Key/touch operation, 7" TFT display, 65536 colors, PROFINET interface<br>- General information<br>Product type designation: KTP700 Basic color PN<br>- Display<br>Design of display: TFT widescreen display, LED backlighting<br>Screen diagonal: 7 in<br>Display width: 154.1 mm; Display height: 85.9 mm<br>- Resolution (pixels)<br>• Horizontal image resolution: 800 pixel<br>• Vertical image resolution: 480 pixel<br>- Touch operation<br>• Design as touch screen: Yes | Siemens      | Châu Âu/OECD/ASEAN | 1        | cái    |         |
| 27  | PLC                             | 6ES7 211-1AE40-0XB0         | CPU 1211C, COMPACT CPU, DC/DC/DC, ONBOARD I/O: 6 DI 24V DC; 4 DO 24 V DC; 2 AI 0 - 10V DC, POWER SUPPLY: DC 20.4 - 28.8 V DC, PROGRAM/DATA MEMORY: 50 KB                                                                                                                                                                                                                                                                                                                                     | Siemens      | Châu Âu/OECD       | 1        | cái    |         |
| 28  | Communications processor module | 6GK1162-3AA00               | Communications processor CP 1623 PCI Express X1 (3, 3 V/12 V) for connection to Industrial Ethernet (10/100/1000 Mbit/s) with 2-port switch (RJ45) via HARDNET-IE S7 and S7-REDCONNECT                                                                                                                                                                                                                                                                                                       | Siemens      | Châu Âu/OECD       | 4        | cái    |         |
| 29  | Controller                      | 772100                      | Configurable safe small controllers PNO/multi 2, base unit, expandable, 20 safe digital inputs, 4 safe semiconductor outputs.                                                                                                                                                                                                                                                                                                                                                                | Pilz         | Châu Âu/OECD       | 1        | cái    |         |
| 30  | Máy tính                        | HP Z4 G4 Workstation        | - Operating system: Windows 10 Pro 64 bit.<br>- Processor: Intel® Xeon® W-2133<br>- Physical memory (RAM): 8 GB.<br>- HDD: SATA 1TB, 7200rpm.<br>- SSD: 521GB<br>- Optical drive: HP Slim DVD-Writer<br>- Graphics: NVIDIA® T400 (4 GB GDDR6 dedicated).<br>- Communications: Intel® I350-T2 dual-port GbE NIC<br>- Power: 750 W internal power supply, up to 90% efficiency, active PFC.                                                                                                    | HP           | Châu Âu/OECD/ASEAN | 1        | Bộ     |         |
| 31  | Fan                             | DV 4650-470                 | Size mm x mm x mm<br>Length :120mm<br>Width :120mm<br>height: 38mm<br>voltage: 230VAC<br>Current: 120mA<br>Power :19W                                                                                                                                                                                                                                                                                                                                                                        | EBM Papst    | Châu Âu/OECD/ASEAN | 30       | cái    |         |

| STT | Tên vật tư/mô tả | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 32  | Fan              | FP-108M/DC                  | <ul style="list-style-type: none"> <li>- BEARING SYSTEM: SLEEVE BEARING &amp; BALL BEARING</li> <li>- IMPELLER: PLASTIC WITH FIBER GLASS FILLED UL 94V-0</li> <li>- HOUSING: PLASTIC WITH FIBER GLASS FILLED UL 94V-0</li> <li>- MOTOR: BRUSHLESS DC</li> <li>- CONNECTING: WIRE LEADS.</li> <li>- SPEED: S-1 HIGH SPEED TYPE</li> <li>- Voltage: 24VDC</li> <li>- Current : 0,24A</li> </ul>                                                                                                                                             | Commonwealth | Châu Âu/OECD/ASEAN | 10       | cái    |         |
| 33  | Fan              | FP-108-1 (S-1)              | <ul style="list-style-type: none"> <li>- BEARING SYSTEM: SLEEVE BEARING &amp; BALL BEARING</li> <li>- IMPELLER: PLASTIC WITH FIBER GLASS FILLED UL 94V-0</li> <li>- HOUSING: DIE CAST ALUMINUM PAINTED BLACK OR NATURAL COLOR PBT PLASTIC UL 94V-0</li> <li>- MOTOR: SHADED POLE, IMPEDANCE PROTECTED</li> <li>- CONNECTING: TERMINAL &amp; WIRE LEADS</li> <li>- SPEED: S-1 HIGH SPEED TYPE</li> <li>- Power supply: 220/240 VAC.</li> <li>- Current: 0.13/0.11 A.</li> <li>- Frequency: 50/60 Hz.</li> <li>- Power: 18/17 W.</li> </ul> | Commonwealth | Châu Âu/OECD/ASEAN | 2        | cái    |         |
| 34  | Hard disk        | ST1000DM010                 | <ul style="list-style-type: none"> <li>- Dung lượng: 1TB</li> <li>- Tốc độ quay: 7200rpm</li> <li>- Bộ nhớ Cache: 64Mb</li> <li>- Chuẩn giao tiếp: SATA 3</li> <li>- Kích thước: 3.5Inch</li> </ul>                                                                                                                                                                                                                                                                                                                                       | Seagate      | Châu Âu/OECD/ASEAN | 5        | cái    |         |
| 35  | Mouse            | MS116                       | <ul style="list-style-type: none"> <li>General:</li> <li>- Color: Black</li> <li>- Buttons: 3</li> </ul> Input Device: <ul style="list-style-type: none"> <li>- Connectivity Technology: Wired.</li> <li>- Interface: USB</li> <li>- Movement Resolution: 1000 dpi</li> </ul>                                                                                                                                                                                                                                                             | Dell         | Châu Âu/OECD/ASEAN | 10       | cái    |         |
| 36  | Keyboard         | KB216                       | General: <ul style="list-style-type: none"> <li>- Interface: USB</li> </ul> Input Device: <ul style="list-style-type: none"> <li>- Hot Keys Function: Volume, mute, play/pause, backward, forward</li> <li>- Keys Style: Chiclet</li> <li>- Keyboard Technology: Plunger</li> </ul> Miscellaneous <ul style="list-style-type: none"> <li>- Color: Black</li> <li>- Cables Included : 1 x USB cable</li> </ul>                                                                                                                             | Dell         | Châu Âu/OECD/ASEAN | 10       | cái    |         |

| STT | Tên vật tư/mô tả                       | Order information (Part N0)     | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|----------------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 37  | Hard disk                              | ST8000NM005<br>5                | <ul style="list-style-type: none"> <li>- Capacity: 8TB</li> <li>- Speed: 7.2K RPM</li> <li>- Interface Types: SATA</li> <li>- Sector Size: 512e</li> <li>- Electrical Interface: SATA 6Gbps</li> </ul>                                                                                                                                                                                                                                                                                                                      | Seagate      | Châu Âu/OECD/ASEAN | 2        | cái    |         |
| 38  | ELECTRICALLY HEATED INSTRUMENT TUBING  | ME-10C2-71-7-ATP-1-XINS(2.0")-M | <ul style="list-style-type: none"> <li>- Bundle Type: ME = Multiple Tubes</li> <li>- Process Tube O.D.: 10=10 mm</li> <li>- Process Tube Material: C= PFA Teflon</li> <li>- Number of Tubes: 2</li> <li>- Heat Trace Type: 71 = HTSX 20 w/ft. 240 Vac</li> <li>- Heat Trace Option: 7 = NEC Ordinary/D2 Areas and CEC D1 &amp; D2 Areas.</li> <li>- Bundle Jacket: ATP</li> <li>- Process Tube(s) Wall Thickness: 1 mm</li> <li>- Nominal Diameter: 2.0"</li> <li>- Length: 145 meters</li> <li>- For KSX, HTSX.</li> </ul> | Thermon      | Châu Âu/OECD       | 1        | cái    |         |
| 39  | Power and End Termination Kit          | - Model: PETK-2.                | <ul style="list-style-type: none"> <li>- Kit Contents:</li> <li>- 1 x RTV Tube.</li> <li>- 1 x Power Connection Boot.</li> <li>- 1 x End Cap.</li> <li>- 1 x End Termination Caution Label.</li> <li>- 1 x Ground Sleeve.</li> </ul>                                                                                                                                                                                                                                                                                        | Thermon      | Châu Âu/OECD       | 3        | Bộ     |         |
| 40  | Seal Kit for Tube Trace and ThermoTube | - Model: FAK-7.                 | <ul style="list-style-type: none"> <li>- Kit Contents:</li> <li>- 1 x Self Vulcanizing Tape.</li> <li>- 3 x RTV Tube.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                            | Thermon      | Châu Âu/OECD       | 2        | Bộ     |         |
| 41  | Heat Shrink Seals                      | - Model: FAK-10-C               | <ul style="list-style-type: none"> <li>- Heat Shrink Seal is to be used on ME or MP bundles up to 59.5mm (2.35").</li> <li>- Legs: 3</li> <li>- Base I.D. inch (mm):</li> <li>+ Before Shrinkage: 2.40 (60.96)</li> <li>+ After Shrinkage: 1.30 (33.02)</li> <li>- Legs I.D. inch (mm):</li> <li>+ Before Shrinkage: 1.25 (31.75)</li> <li>+ After Shrinkage: 0.43 (10.92)</li> <li>- Bundle Max. O.D. in. (mm): 2.35 (59.69)</li> <li>- Product Maximum Exposure Temp. °F (°C): 257 (125).</li> </ul>                      | Thermon      | Châu Âu/OECD       | 2        | Bộ     |         |

| STT | Tên vật tư/mô tả           | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nhà Sản xuất | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|----------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------|--------|---------|
| 42  | Bulkhead Entry Heat Shrink | - Model: FAK-9.             | <ul style="list-style-type: none"> <li>- Overall Nom. Length in. (mm): 6.00 (152.4).</li> <li>- Tube Trace Max. O.D. in. (mm): 2.10 (53.3).</li> <li>- I.D. After Shrinkage in. (mm): 0.75 (19.0).</li> <li>- Product Max. Exposure Temp. °F (°C): 275 (135).</li> <li>- Bulkhead Entry Heat Shrink Contents: <ul style="list-style-type: none"> <li>+ FAK-9 Bulkhead Entry Heat Shrink Flange Assembly.</li> <li>+ FAK-9 Bulkhead Entry Heat Shrink Flange Nut.</li> <li>+ FAK-9 Bulkhead Entry Heat Shrink Flange Nut O-Ring.</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                         | Thermon      | Châu Âu/OECD | 2        | Bộ     |         |
| 43  | Terminator                 | ZP/FAK-4L.                  | <p>Terminator ZP/FAK-4L for In-line Splice of Electrically Heated Tube Trace Bundles.</p> <p>Kit Contents:</p> <ul style="list-style-type: none"> <li>- 1 x Expediter Assembly: Flat Mount Base, Grommet, Threaded Grommet Compressor, and Support Cap with O-Ring.</li> <li>- 1 x Junction Box Lid.</li> <li>- 1 x Junction Box Base with O-Ring.</li> <li>- 1 x Expediter Assembly Nut.</li> <li>- 5 x Terminal Block (Typical).</li> <li>- 1 x Junction Box Cord.</li> <li>- 1 x Inline Splice Cover (Top).</li> <li>- 1 x Inline Splice Cover (Base).</li> <li>- 12 x Pan Head S.S. Screws, #10-32 x 3/4".</li> <li>- 12 x KEPT S.S. Nuts, #10-32.</li> <li>- 3 x M5 Screw.</li> <li>- 3 x M5 Lock Washer.</li> <li>- 1 x Heat Reflective Tape.</li> <li>- 1 x Glass Fiber Tape.</li> <li>- 2 x RTV Sealant Tube.</li> </ul> <p>Dimensions : 372 mm (14-5/8") 308 mm (12") 185 mm (7")</p> | Thermon      | Châu Âu/OECD | 1        | Bộ     |         |

| STT | Tên vật tư/mô tả                              | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nhà Sản xuất | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|-----------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------|--------|---------|
| 44  | Thermostat<br>Connection In-Line<br>Power Kit | ZT-C-190-<br>P/FAK-4L       | <p>Kit Contents:</p> <ul style="list-style-type: none"> <li>- 1 x Expediter Assembly: Flat Mount Base, Grommet, Threaded Grommet Compressor, and Support Cap with O-Ring.</li> <li>- 1 x Junction Box Lid.</li> <li>- 1 x Junction Box Base with O-Ring and M25 Dust Cap.</li> <li>- 1 x 1 Expediter Nut.</li> <li>- 1 x Thermostat w/ Terminal Block:</li> <li>+ Thermostat Type: ZT-C-190</li> <li>+ Control Range: 0°C to +190°C</li> <li>+ Cable Profile: P = RSX, TSX, VSX, VSX-HT, BSX, HTSX, KSX, FP, HPT.</li> <li>- 1 x Junction Box Cord.</li> <li>- 1 x In-Line Splice Cover (Top).</li> <li>- 1 x In-Line Splice Cover (Bottom).</li> <li>- 1 x Heat Reflective Tape.</li> <li>- 3 x RTV Sealant Tube.</li> <li>- 1 x Glass Fiber Tape.</li> <li>- 1 x Silicone Gasket.</li> <li>- 1 x Self-Vulcanizing Tape.</li> <li>- 1 x Blind Plug.</li> </ul> <p>Dimensions : 489 mm (19-1/4") 305 mm (12") 185 mm (7")</p> | Thermon      | Châu Âu/OECD | 2        | Bộ     |         |
| 45  | Temperature sensor                            | RTD 500-3                   | <ul style="list-style-type: none"> <li>- RTD lead wire: 24 AWG Kapton insulated (with stainless steel braid).</li> <li>- RTD leads length: 6' long (1.83 m).</li> <li>- RTD type: 3-wire platinum thin film.</li> <li>- RTD resistance: 100 ohms at 32° (0°C)</li> <li>- RTD calibration</li> <li>- Per ASTM E1137, DIN standard 43760/BS1904/IEC 751</li> <li>- Temperature coefficient: 00385 Ohms/Ohms - °C</li> <li>- Maximum sensor temperature: 500°F (260°C)</li> <li>- Sensor housing material: T304SS1</li> <li>- Bulb dimensions: 0.1875" dia. x 3" long (4.76 x 76 mm)</li> </ul>                                                                                                                                                                                                                                                                                                                                  | Thermon      | Châu Âu/OECD | 1        | cái    |         |

| STT | Tên vật tư/mô tả | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nhà Sản xuất | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------|--------|---------|
| 46  | Dust monitor     | DCEM2100                    | <p>Bộ bao gồm:</p> <ul style="list-style-type: none"> <li>+Transceiver Unit:</li> <li>- Operating Principle (dual-pass, open-path transmissometer)</li> <li>- Measuring Unit: % Opacity, mg/m<sup>3</sup>, mg/Nm<sup>3</sup></li> <li>- Light Source: Modulated High - Intensity LED at 637nm wave length</li> <li>- Light Detection: Continuous measurement of transmitted and received light intensities</li> <li>- Optical Path Length: 0.5 - 15m.</li> <li>- Accuracy: ±0.2% Opacity.</li> <li>- Response time: 10 second.</li> <li>- Flue Gas temperature: up to 850°C.</li> <li>+ Signal Processor Unit (SPU).</li> <li>+ Data Display Unit (DDU)</li> <li>+ Power Supply Unit (PSU)</li> </ul> <p>Phù hợp để thay thế thiết bị hiện hữu tại Nhà máy nhiệt điện Sông Hậu 1 có số Serial :DCEM2100-1240 TRx2</p>                                                                                                                          | Codel        | Châu Âu/OECD | 1        | Bộ     |         |
| 47  | Flow monitor     | VCCEM5100                   | <p>Bộ bao gồm:</p> <ul style="list-style-type: none"> <li>+ Receiver Unit</li> <li>- Operating principle: Infrared correlation.</li> <li>- Detectors: Lithium tantalate pyroelectric.</li> <li>- Duct Diameter: 0.5 to 15m.</li> <li>- Accuracy: ± 2% of measurement.</li> <li>- Linearity: ± 1 of measurement.</li> <li>- Measuring Range: Full selectable from 0-1m/s to 0-50m/s.</li> <li>- Resolution: 0.1 m/s</li> <li>- Flue gas temperature: 70°C minimum.</li> <li>- Enclosure: IP 66</li> <li>+ Signal Process Unit (SPU)</li> <li>+ Data Display Unit (DDU)</li> <li>- Analogue Output: 2x 4-20mA current Output as standard.</li> <li>- Display: 32 Character alpha - numeric back - lit</li> <li>+ Power Supply Unit (PSU):</li> <li>- Main 88-264VAC, single phase, 50/60Hz - 48VDC output to SPU.</li> </ul> <p>Phù hợp để thay thế thiết bị hiện hữu tại Nhà máy nhiệt điện Sông Hậu 1 có số Serial :VCCEM5100-0630 TUV Rx1</p> | Codel        | Châu Âu/OECD | 1        | Bộ     |         |

| SIT | Tên vật tư/mô tả           | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|----------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 48  | Temperature Controller     | TK4S-R4RN                   | <ul style="list-style-type: none"> <li>- Temperature / Process Controller.</li> <li>- Display: 4 Digit.</li> <li>- Size: DIN W48×H48mm (terminal block type).</li> <li>- Input/Output option: Alarm output 1+ Transmission output</li> <li>- Power supply: 100-240VAC 50/60Hz</li> <li>- OUT1 control output: Relay output</li> <li>- OUT2 control output: None</li> </ul>                                                                                                                               | Autonics     | Châu Âu/OECD/ASEAN | 2        | cái    |         |
| 49  | Volume Booster Relay       | YT-320N1                    | <ul style="list-style-type: none"> <li>- Max Supply Pressure: 1 MPa (10 bar)</li> <li>- Max Sig. / Out Pressure: 0.7 MPa (7 bar)</li> <li>- Signal / Output Pressure Ratio: 1 : 1</li> <li>- Flow Capacity (Cv):</li> <li>+ Exhaust: 2.08</li> <li>+ Output: 2.72</li> <li>- Supply/Output connection: 1/2 NPT</li> <li>- Signal connection: 1/4 NPT</li> <li>- Linearity: ±1% F.S.</li> <li>- Ambient Temp: Standard Temp. : -20 ~ 70 °C (-4 ~ 158 °F)</li> <li>- Housing Material: Aluminum</li> </ul> | Rotork       | OECD               | 10       | cái    |         |
| 50  | Compact Filter / Regulator | P32EA23EGAB<br>NGP          | <ul style="list-style-type: none"> <li>- Basic series: Global modular mini filter / regulator</li> <li>- Engr level: Current</li> <li>- Thread type: BSPT</li> <li>- Port size: 3/8</li> <li>- Element: 5µ Element</li> <li>- Bowl type: Poly bowl with bowl guard</li> <li>- Drain type: Auto drain</li> <li>- Relief: Relieving</li> <li>- Adjustment range: 8 bar; 125 psig; 0.8 MPa</li> <li>- Mounting: Plastic panel mount nut</li> </ul>                                                          | Parker       | Châu Âu/OECD/ASEAN | 1        | cái    |         |
| 51  | Global Modular Regulator   | P31RA22BNGP                 | <ul style="list-style-type: none"> <li>- Basic Series: Mini Regulator</li> <li>- Engr level: Current</li> <li>- Thread Type: BSPT</li> <li>- Port Size: 1/4</li> <li>- Relief: Relieving</li> <li>- Adjustment: Non-rising knob</li> <li>- Adjustment Range: 125 psig; 8 bar; 0.8 Mpa</li> <li>- Mounting: Plastic Panel Mount Nut</li> </ul>                                                                                                                                                            | Parker       | Châu Âu/OECD/ASEAN | 1        | cái    |         |

| STT | Tên vật tư/mô tả   | Order information (Part No)             | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nhà Sản xuất             | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|--------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------|----------|--------|---------|
| 52  | Digital Positioner | EDP300-Y0H2F2DA1C6D1F1K1R3              | <ul style="list-style-type: none"> <li>- Explosion Protection Certification: Without</li> <li>- Input Signal / Communication Port: HART digital communication and 4 to 20 mA</li> <li>- Pneumatic Output Type: Double acting</li> <li>- Safe Position: Fail-freeze</li> <li>- Air Pipe Connection: Thread ¼ in -18 NPT female</li> <li>- Cable Conduits: Thread NPT ½ in female</li> <li>- Option Module Slot 1: Analog feedback output</li> <li>- Usage Certifications: Inspection Certificate 3.1 acc. EN 10204, with maximum deviation</li> <li>- Position Indicator: Visual Indicator, integrated into cover</li> <li>- Limit Switches: Microswitches</li> <li>- Position Sensor Type: With integrated (contactless) position sensor</li> <li>- Type of pressure gauge block: 0 to 1 MPa (0 to 10 bar, 0 to 145 psi)</li> </ul> | ABB                      | Châu Âu/OECD       | 1        | cái    |         |
| 53  | Pressure Switch    | P/N: J402-532<br>Option: M202/M446/M900 | <ul style="list-style-type: none"> <li>- Type: Dual switch output with internal hex screw adjustment</li> <li>- Adjustable Set Point Range: -124,5 to 124,5 mbar</li> <li>- Proof Pressure: 100 psi / 6,9 bar</li> <li>- Pressure connection 1/2" NPT (female)</li> <li>- Other options : <ul style="list-style-type: none"> <li>+ Factory set two switches; specify set points on increasing or decreasing pressure, differential pressure or temperature.</li> <li>+ Stainless steel ID tag &amp; wire attachment - Limited to 2 lines of 25 characters each max</li> <li>+ Watertight conduit fitting; converts 7/8" hole to 1/2" NPT fitting</li> </ul> </li> </ul>                                                                                                                                                             | United Electric Controls | Châu Âu/OECD       | 1        | cái    |         |
| 54  | On/Off Valve       | HE-3/4-D-MAXI (Part NO: 162812)         | <ul style="list-style-type: none"> <li>- Type of actuation: Manual</li> <li>- Sealing principle: Soft</li> <li>- Operating pressure: 0 bar ... 16 bar</li> <li>- Standard nominal flow rate (standardised to DIN 1343): 6000 l/min</li> <li>- Pneumatic connection, port 1: G3/4</li> <li>- Pneumatic connection, port 2: G3/4</li> <li>- Pneumatic connection, port 3: G3/8</li> <li>- Material seals: NBR</li> <li>- Material housing: Die-cast aluminium</li> </ul>                                                                                                                                                                                                                                                                                                                                                              | Festo                    | Châu Âu/OECD/ASEAN | 2        | cái    |         |

| STT | Tên vật tư/mô tả                                                   | Order information (Part No)                                   | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|--------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 55  | Filter Regulator                                                   | LFR-3/4-D-MAXI-A<br>(Part NO: 159636)                         | <ul style="list-style-type: none"> <li>- Actuator lock: Rotary knob with detent</li> <li>- Condensate drain: Fully automatic</li> <li>- Design: Filter regulator with pressure gauge</li> <li>- Bowl guard: Metal bowl guard</li> <li>- Pressure regulation range: 0.5 bar ... 12 bar</li> <li>- Standard nominal flow rate (standardised to DIN 1343): 9700 l/min</li> <li>- Pneumatic connection, port 1: G3/4</li> <li>- Pneumatic connection, port 2 G3/4</li> <li>- Material housing: Die-cast zinc</li> </ul> | FESTO        | Châu Âu/OECD/ASEAN | 7        | cái    |         |
| 56  | Fine Filter                                                        | LFMB-D-MIDI-A<br>(Part NO: 192573)                            | <ul style="list-style-type: none"> <li>- Structural design: Fiber filter</li> <li>- Grade of filtration: 1 µm</li> <li>- Condensate drain: Fully automatic</li> <li>- Operating pressure: 2 bar ... 12 bar</li> <li>- Bowl guard: Metal bowl guard</li> <li>- Residual oil content: 0.5 mg/m³</li> <li>- Housing material: Die-cast zinc</li> <li>- Material of bowl: PC</li> </ul>                                                                                                                                 | FESTO        | Châu Âu/OECD/ASEAN | 4        | cái    |         |
| 57  | Pressure Regulator                                                 | LR-1/4-D-I-MIDI<br>(Part NO: 192310)                          | <ul style="list-style-type: none"> <li>- Design: Directly actuated diaphragm regulator</li> <li>- Pressure regulation range: 0.5 bar ... 12 bar</li> <li>- Standard nominal flow rate (standardised to DIN 1343): 2100 l/min</li> <li>- Pneumatic connection, port 1: G1/4</li> <li>- Pneumatic connection, port 2: G1/4</li> </ul>                                                                                                                                                                                 | FESTO        | Châu Âu/OECD/ASEAN | 4        | cái    |         |
| 58  | 3/2 directional seat valve with solenoid actuation                 | M-3SED 6 CK14/350CG20 5N9K4<br>(Material Numbers: R900223863) | M-3SED 6 CK14/350CG205N9K4<br>MNR: R900223863                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Rexroth      | Châu Âu/OECD       | 2        | cái    |         |
| 59  | Directional spool valves, direct operated, with solenoid actuation | 4WE 6 G62/EG205N9 K4<br>(Material Numbers: R900916152)        | 4WE 6 G62/EG205N9K4<br>MNR: R900916152                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Rexroth      | Châu Âu/OECD       | 2        | cái    |         |

| STT | Tên vật tư/mô tả           | Order information (Part No) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nhà Sản xuất   | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|----------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|----------|--------|---------|
| 60  | Load cell                  | CXG-T200                    | <ul style="list-style-type: none"> <li>- Rated capacity(R.C): 200tf</li> <li>- Rated output(R.O): 2.0mV/V± 0.1(50tf ~500tf : 1.5mV/V± 0.1%)</li> <li>- Nonlinearity: 0.5% of R.O</li> <li>- Hysteresis: 0.5% of R.O</li> <li>- Repeatability: 0.1% of R.O</li> <li>- Zero balance: ±1% of R.O</li> <li>- Temperature effect, on rated output: 0.1% of LOAD/10°C</li> <li>- Temperature effect, on zero balance: 0.1% of R.O/10°C</li> <li>- Terminal resistance input: 350±5 Ohm</li> <li>- Terminal resistance output: 350±5 Ohm</li> <li>- Excitation recommended: 10V</li> <li>- Safe overload: 150% R.C</li> <li>- Cable length: Ø7mm 4core, 3m</li> </ul>         | Dacell         | OECD               | 4        | cái    |         |
| 61  | Level Switch               | SRF-600SS-D-OP-OP-1-OP-2    | <ul style="list-style-type: none"> <li>- Type: Radio frequency level sensor</li> <li>- Signal: <ul style="list-style-type: none"> <li>+ Non Detection: DC 9-12 mA</li> <li>+ Detection: DC 18-21 mA</li> </ul> </li> <li>- Sensitivity range: 5~30pF</li> <li>- Power Supply: 16~30V DC( Head &amp; Probe Separation Type)</li> <li>- Probe length: 350 mm</li> <li>- Enclosure: Weather proof (Std)</li> <li>- Conduit connection: 1/2" NPT</li> <li>- Material of detection probe: 316LSS</li> <li>- (Phải thích hợp để thay thế cho Level Switch model SRF-600SS-D-OP-OP-1-OP-2, S/N170255 của hãng SEOJIN INSTECH hiện hữu tại nhà máy điện Sông Hậu 1)</li> </ul> | SEOJIN INSTECH | OECD               | 2        | cái    |         |
| 62  | Vibrating Rod Level Switch | VIH-D1B0-000                | <ul style="list-style-type: none"> <li>- DESIGN TYPE: Standard, length in inches</li> <li>- PROBE TYPE: Standard rigid, 8.25" (21 cm) length</li> <li>- INPUT VOLTAGE: 110VAC</li> <li>- INSERTION LENGTH: 21 cm</li> <li>- Process connection: 1-1/2 NPT</li> <li>- Conduit Connection: 3/4" NPT</li> </ul>                                                                                                                                                                                                                                                                                                                                                           | MAGNETROL      | Châu Âu/OECD/ASEAN | 1        | cái    |         |
| 63  | Detector Probe Assembly    | Part Number: A39956-1       | <ul style="list-style-type: none"> <li>- Part Number: A39956-1</li> <li>- Type: Ultrasonic Acoustic Flow Monitor</li> <li>- Sensitivity: 40 dB - 80 dB (adjustable)</li> <li>- Size (approx): Detector, 7 1/2" (191mm) diameter (flange) x 9" (229mm) long.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                 | MERRICK        | Châu Âu/OECD       | 1        | cái    |         |

| STT | Tên vật tư/mô tả                        | Order information (Part N0)                                                                                                                                                                                                           | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nhà Sản xuất   | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|----------|--------|---------|
| 64  | Limit switch                            | 9007CR65B2                                                                                                                                                                                                                            | <ul style="list-style-type: none"> <li>- Product or component type: Limit switch</li> <li>- Body type: Fixed</li> <li>- Head type: Rotary head</li> <li>- Material: Metal</li> <li>- Movement of operating head: Rotary</li> <li>- IP degree of protection: IP67 conforming to IEC 60529</li> </ul>                                                                                                                                                                                                                                                                                                                                                 | Telemechanique | Châu Âu/OECD/ASEAN | 2        | cái    |         |
| 65  | Set of Controller PCB and Display board | <ul style="list-style-type: none"> <li>- Controller PCB: MVPB-01/M+V</li> <li>- Display board: MVPB-01</li> </ul> Phải có khả năng lắp đặt, kết nối, điều khiển hydraulic actuator MV10400 hiện hữu tại Nhà máy Nhiệt điện Sông Hậu 1 | <ul style="list-style-type: none"> <li>- Controller PCB: MVPB-01/M+V</li> <li>- Display board: MVPB-01</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | AVTEC          | OECD               | 4        | Bộ     |         |
| 66  | Analogue isolating amplifier            | ACT20M-AI-AO-S<br>P/N: 1176000000                                                                                                                                                                                                     | Input <ul style="list-style-type: none"> <li>- Input current: configurable, 0...20 mA, 4...20mA</li> <li>- Input resistance, voltage: &gt;500 kΩ</li> </ul> Output <ul style="list-style-type: none"> <li>- Cut-off frequency (-3 dB): 100 Hz</li> <li>- Number of outputs: 1</li> <li>- Output voltage: configurable, 0(2)...10 V, 0(1)...5 V</li> <li>- load impedance voltage: ≥ 10 kΩ</li> <li>- Output current: configurable, 0...20 mA, 4...20 mA</li> </ul> General data <ul style="list-style-type: none"> <li>- Accuracy: &lt;0.05 % of measuring range</li> <li>- Configuration: DIP switch</li> <li>- Protection degree: IP20</li> </ul> | Weidmüller     | Châu Âu/OECD/ASEAN | 1        | cái    |         |
| 67  | Differential Pressure Switch            | P642.2D3EN.H<br>044.1.8                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>- Differential pressure indicating switch with bellows element (0 ~ 0.4 MPa to 0 ~ 2.0 MPa)</li> <li>- Switch form: High and low alarm contact differential pressure switch</li> <li>- Type of mounting: Bottom connection, mounting bracket for 2" pipe</li> <li>- Accuracy: ±1.0 % of full scale (Optional)</li> <li>- Process connection: ½" NPT(F)</li> <li>- Mounting bracket: None</li> <li>- Unit: bar</li> <li>- Range: 0~4bar</li> <li>- Element and flange material: 316 LSS</li> <li>- Option: ½" NPT(F) conduit connection</li> <li>- Nominal diameter: 150mm</li> </ul>                         | WISE           | OECD               | 1        | cái    |         |

| STT | Tên vật tư/mô tả                 | Order information (Part No)        | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Nhà Sản xuất  | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|----------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------|--------|---------|
| 68  | Transmitter for angular position | TGM5 (P14436-0-1073130, Code: 303) | <ul style="list-style-type: none"> <li>- Design: Standard</li> <li>- Measuring range: 0... 15°/75°</li> <li>- Output: 4...20 mA 4-wire circuit</li> <li>- Power supply: Universal current with electr. Isolation and TAZ suppressor diode (only 4-wire-circuit)</li> <li>- Cable entry: Cable connector PG 13.5</li> <li>- Shaft bearings: Ball bearing</li> <li>- (Phải tương thích với Position Transmitter TGM5 (P14436-0-1073130, Code 303) hiện hữu nhà máy điện Sông Hậu 1 đang sử dụng)</li> </ul> | ABB           | Châu Âu/OECD       | 1        | cái    |         |
| 69  | Micro Switch                     | BZ-2RQ18-A2                        | Part No: BZ-2RQ18-A2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | HONEYWELL     | Châu Âu/OECD/ASEAN | 1        | cái    |         |
| 70  | Limit Switch                     | LSA3K                              | Part No: LSA3K                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | HONEYWELL     | Châu Âu/OECD/ASEAN | 2        | cái    |         |
| 71  | Volume Booster Relay             | YT 300N1                           | <ul style="list-style-type: none"> <li>- Air Connection Type: NPT</li> <li>- Max. Supply Pressure: 1 MPa (10 bar)</li> <li>- Max. Signal / Output Pressure: 0.7 MPa (7 bar)</li> <li>- Signal / Output Pressure Ratio: 1 : 1</li> <li>- Flow Capacity (Cv):</li> <li>+ Exhaust: 1.32</li> <li>+ Output: 1.19</li> <li>- Supply / Output Connection : 1/4 NPT</li> <li>- Signal Connection : 1/4 NPT</li> <li>- Housing Material: Aluminum</li> </ul>                                                      | Rotork        | OECD               | 14       | cái    |         |
| 72  | Limit Switch                     | ZCKJ4                              | - Part No: ZCKJ4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Telemecanique | Châu Âu/OECD/ASEAN | 10       | cái    |         |
| 73  | Air Filter Regulator             | YT - 205BN210                      | <ul style="list-style-type: none"> <li>- Max. Supply Pressure: 1.7 MPa=17 bar=246.5 psi</li> <li>- Max. Output Pressure: 0.84 MPa</li> <li>- Air connection 1/4 NPT</li> <li>- Gauge connection 1/4 NPT</li> <li>- Operating Temp: -20 to 70 Deg C (-4 to 158 Deg F (Standard type)</li> <li>- Material: Stainless steel 316</li> <li>- Gauge: 0 to 1.0 MPa</li> <li>- Option: Manual drain</li> </ul>                                                                                                    | Rotork        | OECD               | 9        | cái    |         |

| STT | Tên vật tư/mô tả | Order information (Part No) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nhà Sản xuất             | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------|----------|--------|---------|
| 74  | Inductive sensor | IG5539                      | <ul style="list-style-type: none"> <li>- Electrical design: PNP</li> <li>- Output function: complementary</li> <li>- Sensing range [mm]: 5</li> <li>- Housing: threaded type</li> <li>- Operating voltage [V]: 10...30 DC</li> <li>- Current consumption [mA]: &lt; 10; (24 V)</li> <li>- Switching frequency DC [Hz]: 400</li> <li>- Protection: IP 67</li> <li>- Thread designation: M18 x 1</li> </ul>                                                                                                                                                                                                         | IFM                      | Châu Âu/OECD       | 1        | cái    |         |
| 75  | Limit Switch     | HY-M908                     | <ul style="list-style-type: none"> <li>- Type: Limit switch</li> <li>- Actuator: Roller Lever Type</li> <li>- No operation indicator</li> <li>- Contact material: AgNi</li> <li>- Rated voltage(Ue): 250 V a.c, 30 V d.c</li> </ul>                                                                                                                                                                                                                                                                                                                                                                               | HANYOUNG NUX             | Châu Âu/OECD/ASEAN | 2        | cái    |         |
| 76  | Spark rod        | Drawing No: AE085025415     | L=5415mm<br>Drawing No: AE085025415                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Tesi                     | Châu Âu/OECD       | 10       | cái    |         |
| 77  | Spark tip        | ZA_0063                     | HE Ignition Tip-inconel<br>Tham khảo Mã bản vẽ AE085025415 của Tesi<br>(phải Phù hợp để thay thế Spark tip hiệu hữu nhà máy điện Sóng Hấp 1 đang sử dụng)                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Tesi                     | Châu Âu/OECD       | 5        | cái    |         |
| 78  | Pressure Switch  | H122-361/M202/M446/M914     | <ul style="list-style-type: none"> <li>- Type: Two SPDT; epoxy coated enclosure; external adjustment with reference dial, single conduit</li> <li>- Adjustable set point: 0 to 300 psi</li> <li>- Deadband: 2 to 9 psi</li> <li>- Over range: 200 psi</li> <li>- Proof: 350 psi</li> <li>- Dial division: 10 ("Hg)</li> <li>- Wetted material: 316LSS</li> <li>- Thread: 1/4" NPT (F)</li> <li>- Orifice: 0.06"</li> <li>- Sensor style: L</li> <li>- Miscellaneous option:               <ul style="list-style-type: none"> <li>+ Factory set two switches</li> <li>+ Stainless Steel Tag</li> </ul> </li> </ul> | United Electric Controls | Châu Âu/OECD       | 1        | cái    |         |

| STT | Tên vật tư/mô tả                          | Order information (Part N0)                    | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nhà Sản xuất             | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|-------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------|----------|--------|---------|
| 79  | Pressure Switch                           | H402-361<br>Option:<br>M202/M446/M900/M914/QC1 | <ul style="list-style-type: none"> <li>- Type: dual switch output with internal adjustment via reference dial</li> <li>- Welded 316L stainless steel bellows and 1/4" NPT (female) pressure connection</li> <li>- Adjustable set point range: 0 to 300 psi</li> <li>- Deadband: 2 to 9 psi</li> <li>- Proof Pressure: 350 psi</li> <li>- Scale Division: 10</li> <li>- Other options : <ul style="list-style-type: none"> <li>+ Factory set two switches; specify set points on increasing or decreasing pressure, differential pressure or temperature.</li> <li>+ Stainless steel ID tag &amp; wire attachment - Limited to 2 lines of 25 characters each max</li> <li>+ Watertight conduit fitting; converts 7/8" hole to 1/2" NPT fitting + 1/2" NPT (female) stainless steel pressure connection.</li> </ul> </li> </ul> | United Electric Controls | Châu Âu/OECD       | 1        | cái    |         |
| 80  | Limit switch                              | GLAA20A2A                                      | <ul style="list-style-type: none"> <li>- Body Style (EN50041): Non plug-in</li> <li>- Conduit: 0.5-14 NPT</li> <li>- Basic Switch: 2NC/2NO, DPDT snap action</li> <li>- Heads: Side rotary</li> <li>- 38 to 93 mm adjustable, 19 x 6 nylon roller</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Honeywell                | Châu Âu/OECD/ASEAN | 10       | cái    |         |
| 81  | Limit switch                              | GLAA20B                                        | <ul style="list-style-type: none"> <li>- Body Style (EN50041): Non plug-in</li> <li>- Conduit: 0.5-14 NPT</li> <li>- Basic Switch: 2NC/2NO, DPDT snap action</li> <li>- Heads: Top pin plunger (SST)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Honeywell                | Châu Âu/OECD/ASEAN | 10       | cái    |         |
| 82  | Displacement sensor                       | FL-202F08R-M2-R5-03-05                         | <ul style="list-style-type: none"> <li>- Sensor tip diameter: 8 mm</li> <li>- Thread size: M10x1</li> <li>- Unthreaded length (L1): R5=5 mm</li> <li>- Case length (L2): 30mm</li> <li>- Cable length and connector (L3): 0.5 m</li> <li>- Measuring range: 0.25 to 2.25 mm from sensor tip</li> <li>- Power supply -24 VDC ±10 %</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Shinkawa                 | Châu Âu/OECD       | 1        | cái    |         |
| 83  | Extension cable for (Displacement sensor) | FW-202FL-85                                    | <ul style="list-style-type: none"> <li>- Armor: Without armor</li> <li>- Cable length (L): 8.5m</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Shinkawa                 | Châu Âu/OECD       | 1        | cái    |         |

| STT | Tên vật tư/mô tả                          | Order information (Part No) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nhà Sản xuất | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|-------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------|--------|---------|
| 84  | Displacement sensor                       | FL-202F08R-M2-R5-03-10      | <ul style="list-style-type: none"> <li>- Sensor tip diameter: 8 mm</li> <li>- Thread size: M10x1</li> <li>- Unthreaded length (L1): 5mm</li> <li>- Case length (L2): 30mm</li> <li>- Case length (L3): 1.0m</li> <li>- Measurement range: 0.25 to 2.25 mm from sensor tip</li> <li>- Power supply -24 VDC <math>\pm</math>10 %</li> </ul>                                                                                                                                                     | Shinkawa     | Châu Âu/OECD | 3        | cái    |         |
| 85  | Extension cable for (Displacement sensor) | FW-202FL-80                 | <ul style="list-style-type: none"> <li>- Armor: Without armor</li> <li>- Cable length (L): 8m</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                      | Shinkawa     | Châu Âu/OECD | 2        | cái    |         |
| 86  | Driver                                    | FK-202F2-3-1                | <ul style="list-style-type: none"> <li>- System cable length: 9m</li> <li>- Mounting plate: Screw mount (92x31mm: For VK replacement)</li> <li>- Terminal block: Screw type terminal block (M4)</li> <li>- OUTPUT IMPEDANCE: 50<math>\Omega</math> Current 5mA(max.)</li> <li>- POWER SUPPLY: -24VDC <math>\pm</math> 10%</li> </ul>                                                                                                                                                          | Shinkawa     | Châu Âu/OECD | 2        | cái    |         |
| 87  | Velocity transducer                       | CV-861                      | <ul style="list-style-type: none"> <li>- Cable type: Connector type</li> <li>- Sensitivity: 3.94mV/mm/s (100mV/in/s REF.)pk <math>\pm</math> 5% at 100Hz, 25°C (77°F REF.)</li> <li>- Max. Velocity: 1,270mm/s (50in/s REF.)pk</li> <li>- Max. Shock Energy: 4J (Intrinsically safe)</li> <li>- Linearity: <math>\pm</math> 1% of F.S.</li> <li>- Natural Frequency: 15kHz</li> <li>- Power Supply: 18 to 30VDC, 2 to 10mADC (constant current)</li> <li>- Protection Rating: IP67</li> </ul> | Shinkawa     | Châu Âu/OECD | 3        | cái    |         |
| 88  | Velocity transducer Cable                 | CW-100E-EF-00-0             | <ul style="list-style-type: none"> <li>- Cable length (L): 10m</li> <li>- Lug type: cut off</li> <li>- Flexible armor: Without</li> </ul>                                                                                                                                                                                                                                                                                                                                                     | Shinkawa     | Châu Âu/OECD | 3        | cái    |         |

| STT | Tên vật tư/mô tả                          | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Nhà Sản xuất | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|-------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------|--------|---------|
| 89  | Displacement sensor                       | FL-202F08L-U2-00-16-10      | <ul style="list-style-type: none"> <li>- Armor: Without armor</li> <li>- Thread size: 3/8-24UNF</li> <li>- Unthreaded length (L1): 00 inch</li> <li>- Case length (L2): 1.6 inch</li> <li>- Case length (L3): 1 m</li> <li>- Sensor tip: Ø8mm</li> </ul>                                                                                                                                                                                                                                                                     | Shinkawa     | Châu Âu/OECD | 2        | cái    |         |
| 90  | Displacement sensor                       | FL-202F08L-U2-00-20-10      | <ul style="list-style-type: none"> <li>- Armor: Without armor</li> <li>- Thread size: 3/8-24UNF</li> <li>- Unthreaded length (L1): 0.0 inch</li> <li>- Case length (L2): 2.0 inch</li> <li>- Cable length (L3): 1.0m</li> <li>- Sensor tip: Ø8mm</li> </ul>                                                                                                                                                                                                                                                                  | Shinkawa     | Châu Âu/OECD | 1        | cái    |         |
| 91  | Displacement sensor                       | FL-263F55L-M1-00-00-10      | <ul style="list-style-type: none"> <li>- Measuring range: 3 mm to 29 mm from sensor tip</li> <li>- Sensitivity: 0.4 V/mm</li> <li>- Sensor tip diameter: Approx 50 mm dia</li> <li>- Armor: Without armor</li> <li>- Thread size: 4-M6 DEPTH 14</li> <li>- Cable length (L3): 1.0 m</li> </ul>                                                                                                                                                                                                                               | Shinkawa     | Châu Âu/OECD | 2        | cái    |         |
| 92  | Extension cable (for Displacement sensor) | FW-263FL-80                 | <ul style="list-style-type: none"> <li>- Armor: Without armor</li> <li>- Cable length (L): 8.0 m</li> <li>- Cable diameter Approx. 3.6 mm dia.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                    | Shinkawa     | Châu Âu/OECD | 2        | cái    |         |
| 93  | Driver                                    | FK-263F6-3-1                | <ul style="list-style-type: none"> <li>- System cable length: 9m</li> <li>- Mounting plate: Screw mount (92× 31mm : For VK replacement)</li> <li>- Terminal block: Screw type terminal block (M4)</li> <li>- OUTPUT IMPEDANCE: 50Ω Current 5mA(max.)</li> <li>- POWER SUPPLY: -24VDC ± 10%</li> </ul>                                                                                                                                                                                                                        | Shinkawa     | Châu Âu/OECD | 2        | cái    |         |
| 94  | Linear variable differential transformer  | LS-050TM                    | <ul style="list-style-type: none"> <li>- Stroke: 50 mm</li> <li>- Thread of extension rod: M5x0.8</li> <li>- Output voltage: Approx. (-0.8 to +0.8 V)/full stroke to approx. (-1.3 to +1.3 V)/full stroke at relay signal 5Vrms (measured with the test circuit)</li> <li>- Excitation: 3kHz, 5 to 20Vrms</li> <li>- Linearity: ±0.2% of 100% stroke, ±1.5% of 110% stroke (measured with the test circuit)</li> <li>- Dielectric Strength: 1mA or less at 500VAC for one minute (Between each terminal and body)</li> </ul> | Shinkawa     | Châu Âu/OECD | 1        | cái    |         |

| STT | Tên vật tư/mô tả                                 | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nhà Sản xuất | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|--------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------|--------|---------|
| 95  | Temperature sensor                               | R312PK1F87G<br>AZZA0        | <ul style="list-style-type: none"> <li>- Extension lead type double element</li> <li>- Head type: None head</li> <li>- Element (Tolerance): K (0.75)</li> <li>- Sheath or protecting tube material: 316SS</li> <li>- Sheath or protecting tube outer diameter (mm): 6.4 (Tube)</li> <li>- Electrical connection (None head): None</li> <li>- Lead wire length (M): 20m</li> <li>- Insert length: 100mm</li> </ul> Phải tương thích để lắp đặt, thay thế cho cảm biến nhiệt độ model R312PK1F87GAZZA0, Serial: R180301092, của hãng Wise<br>- Tham khảo bản vẽ TA1Z17013-G-R312-001, của hãng Wise | Wise         | OECD         | 5        | cái    |         |
| 96  | Temperature Transmitter                          | TTH300.Y0.H.<br>BS          | <ul style="list-style-type: none"> <li>- Output signal: Configurable 4 to 20 mA (standard)</li> <li>- Supply voltage: US = 11 to 42 V DC</li> <li>- TTH300 Head Mounted Temperature Transmitter, Pt100 (RTD), thermocouples, electrical isolation</li> <li>- Explosion Protection: Without explosion protection</li> <li>- Communication Protocol: HART</li> <li>- Standard configuration</li> </ul>                                                                                                                                                                                              | ABB          | Châu Âu/OECD | 10       | cái    |         |
| 97  | Temperature Sensor                               | R322<br>A17F93GPPCL<br>0    | <ul style="list-style-type: none"> <li>- Armored lead type double element</li> <li>- Head type: General (Weatherproof)</li> <li>- Element (Tolerance): K (0.4)</li> <li>- Sheath or protecting tube material: 316L SS</li> <li>- Sheath or protecting tube outer diameter (mm): 6.4 (Sheath)</li> <li>- Conduit connection (General (Weatherproof)): 1/2" NPT</li> <li>- Lead wire length : 20,000 mm</li> <li>- Mounting type: Compression fitting</li> <li>- Connection size and connector material: 1/4" and 316SS</li> <li>- Insert length: 1,078mm</li> </ul>                                | WISE         | OECD         | 1        | cái    |         |
| 98  | 4/3 Proportional directional valve direct-acting | P4WE 06 E04<br>D01-24PG/V   | <ul style="list-style-type: none"> <li>- Type: Proportional directional valve with 4 main ports, direct-acting</li> <li>- Nominal size: 6</li> <li>- Symbol: E</li> <li>- Nominal flow: 4 l/min</li> <li>- Rated voltage of the solenoid coil: 24 VDC</li> <li>- Coil type: device connector to DIN EN175301-803</li> <li>- Sealing material: FKM (standard)</li> </ul>                                                                                                                                                                                                                           | HYDAC        | Châu Âu/OECD | 1        | cái    |         |

| STT | Tên vật tư/mô tả                                 | Order information (Part N0)           | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|--------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 99  | 4/3 Proportional directional valve direct-acting | P4WE 06 E08 D01-24PG/V                | <ul style="list-style-type: none"> <li>- Type: Proportional directional valve with 4 main ports, direct-acting</li> <li>- Nominal size: 6</li> <li>- Symbol: E</li> <li>- Nominal flow: 8 l/min</li> <li>- Rated voltage of the solenoid coil: 24 VDC</li> <li>- Coil type: device connector to DIN EN175301-803</li> <li>- Sealing material: FKM (standard)</li> <li>- Housing: Aluminium</li> <li>+ Pressure resistance: 450 bar</li> <li>+ Peak pressure: 750 bar</li> <li>- Protection class to IEC 60529: IP 65</li> <li>- Supply voltage: 24 V DC <math>\pm</math> 10 %</li> <li>- Design/Geometry type: Rod (only in conjunction with type R1)</li> <li>- Type: Threaded flange M18x1.5</li> <li>- Electrical connection: Male M16, 8 pole</li> <li>- Signal output: Analogue 20 ... 4 mA, 3 conductor</li> <li>- Measuring range in mm (50 to 4000 mm): 100 mm</li> <li>- Modification: standard</li> </ul> | HYDAC        | Châu Âu/OECD       | 1        | cái    |         |
| 100 | Linear Position Transmitter                      | Type: HTL<br>2100-R1-M08-C02-0100-000 | <ul style="list-style-type: none"> <li>- Type: A</li> <li>- Communication 1: HART – Control loop</li> <li>- Communication 2: None</li> <li>- Expansion card 1: 2 x AO (4-20mA - active) and 2 x digital input</li> <li>- Software features: Advanced regulation using 4-20mA proportional valve – Expansion card 01</li> <li>- 3000249</li> <li>- Supply voltage: 24 VDC - 30 <math>\Omega</math></li> <li>- Phù hợp lắp đặt cho solenoid coils 3000249 04/19 của nhà sản xuất Hydac hiện hữu tại nhà máy điện Sông Hậu 1 đang sử dụng</li> <li>- Voltage: 24V DC</li> <li>- Exd II CT6</li> <li>- Connection Inlet/Outlet: 1/4"</li> <li>- Phải thay thế được cho solenoid van VSNS-FC-B52-MH-14-CS2, của hãng Festo nhà máy điện Sông Hậu 1 đang sử dụng</li> <li>- Cable length (L): 4 m</li> <li>- Cable: Ø3.6 mm</li> <li>- Sensor side: Ø6.8 mm</li> <li>- Driver side: Ø7.1 mm</li> </ul>                    | HYDAC        | Châu Âu/OECD       | 1        | cái    |         |
| 101 | Intelligent Hydraulic Positioner                 | IHP24-A-100001-C                      | <ul style="list-style-type: none"> <li>- Type: A</li> <li>- Communication 1: HART – Control loop</li> <li>- Communication 2: None</li> <li>- Expansion card 1: 2 x AO (4-20mA - active) and 2 x digital input</li> <li>- Software features: Advanced regulation using 4-20mA proportional valve – Expansion card 01</li> <li>- 3000249</li> <li>- Supply voltage: 24 VDC - 30 <math>\Omega</math></li> <li>- Phù hợp lắp đặt cho solenoid coils 3000249 04/19 của nhà sản xuất Hydac hiện hữu tại nhà máy điện Sông Hậu 1 đang sử dụng</li> <li>- Voltage: 24V DC</li> <li>- Exd II CT6</li> <li>- Connection Inlet/Outlet: 1/4"</li> <li>- Phải thay thế được cho solenoid van VSNS-FC-B52-MH-14-CS2, của hãng Festo nhà máy điện Sông Hậu 1 đang sử dụng</li> <li>- Cable length (L): 4 m</li> <li>- Cable: Ø3.6 mm</li> <li>- Sensor side: Ø6.8 mm</li> <li>- Driver side: Ø7.1 mm</li> </ul>                    | ValControls  | Châu Âu/OECD       | 2        | cái    |         |
| 102 | Solenoid Coils                                   | 3000249                               | <ul style="list-style-type: none"> <li>- 3000249</li> <li>- Supply voltage: 24 VDC - 30 <math>\Omega</math></li> <li>- Phù hợp lắp đặt cho solenoid coils 3000249 04/19 của nhà sản xuất Hydac hiện hữu tại nhà máy điện Sông Hậu 1 đang sử dụng</li> <li>- Voltage: 24V DC</li> <li>- Exd II CT6</li> <li>- Connection Inlet/Outlet: 1/4"</li> <li>- Phải thay thế được cho solenoid van VSNS-FC-B52-MH-14-CS2, của hãng Festo nhà máy điện Sông Hậu 1 đang sử dụng</li> <li>- Cable length (L): 4 m</li> <li>- Cable: Ø3.6 mm</li> <li>- Sensor side: Ø6.8 mm</li> <li>- Driver side: Ø7.1 mm</li> </ul>                                                                                                                                                                                                                                                                                                          | HYDAC        | Châu Âu/OECD       | 4        | cái    |         |
| 103 | Solenoid valve                                   | VSNS-FC-B52-MH-14-CS2                 | <ul style="list-style-type: none"> <li>- 3000249</li> <li>- Supply voltage: 24 VDC - 30 <math>\Omega</math></li> <li>- Phù hợp lắp đặt cho solenoid coils 3000249 04/19 của nhà sản xuất Hydac hiện hữu tại nhà máy điện Sông Hậu 1 đang sử dụng</li> <li>- Voltage: 24V DC</li> <li>- Exd II CT6</li> <li>- Connection Inlet/Outlet: 1/4"</li> <li>- Phải thay thế được cho solenoid van VSNS-FC-B52-MH-14-CS2, của hãng Festo nhà máy điện Sông Hậu 1 đang sử dụng</li> <li>- Cable length (L): 4 m</li> <li>- Cable: Ø3.6 mm</li> <li>- Sensor side: Ø6.8 mm</li> <li>- Driver side: Ø7.1 mm</li> </ul>                                                                                                                                                                                                                                                                                                          | FESTO        | Châu Âu/OECD/ASEAN | 5        | cái    |         |
| 104 | Extension Cable for (Displacement sensor)        | FW-202FL-40                           | <ul style="list-style-type: none"> <li>- 3000249</li> <li>- Supply voltage: 24 VDC - 30 <math>\Omega</math></li> <li>- Phù hợp lắp đặt cho solenoid coils 3000249 04/19 của nhà sản xuất Hydac hiện hữu tại nhà máy điện Sông Hậu 1 đang sử dụng</li> <li>- Voltage: 24V DC</li> <li>- Exd II CT6</li> <li>- Connection Inlet/Outlet: 1/4"</li> <li>- Phải thay thế được cho solenoid van VSNS-FC-B52-MH-14-CS2, của hãng Festo nhà máy điện Sông Hậu 1 đang sử dụng</li> <li>- Cable length (L): 4 m</li> <li>- Cable: Ø3.6 mm</li> <li>- Sensor side: Ø6.8 mm</li> <li>- Driver side: Ø7.1 mm</li> </ul>                                                                                                                                                                                                                                                                                                          | Shinkawa     | Châu Âu/OECD       | 2        | cái    |         |

| STT | Tên vật tư/mô tả                          | Order information (Part No) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                | Nhà Sản xuất | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|-------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------|--------|---------|
| 105 | Driver                                    | FK-202F1-3-1                | <ul style="list-style-type: none"> <li>- System cable length: 5m</li> <li>- Mounting plate: Screw mount (92×31mm : For VK replacement)</li> <li>- Terminal block: Screw type terminal block (M4)</li> <li>- SENSOR ABNORMAL OUTPUT VOLTAGE: Approx. -0.6VDC (Sensor OPEN/Sensor SHORT)</li> <li>- OUTPUT IMPEDANCE: 50Ω Current 5mA(max.)</li> <li>- CURRENT CONSUMPTION (10kΩ load): Max. -15mA</li> <li>- POWER SUPPLY: -24VDC ± 10%</li> </ul>                | Shinkawa     | Châu Âu/OECD | 2        | cái    |         |
| 106 | Displacement Sensor                       | FL-452F11L-M1-00-04-10      | <ul style="list-style-type: none"> <li>- Unthreaded length (L1): 0 mm</li> <li>- Case length (L2): 40 mm</li> <li>- Case length (L3): 1 m</li> <li>- Sensor tip: Ø11</li> <li>- Coax. Connector: Ø7.1mm</li> </ul>                                                                                                                                                                                                                                               | Shinkawa     | Châu Âu/OECD | 1        | cái    |         |
| 107 | Extension Cable for (Displacement sensor) | FW-452FL-40                 | <ul style="list-style-type: none"> <li>- Cable length (L): 4 m</li> <li>- Sensor side: Ø6.8 mm</li> <li>- Driver side: Ø7.1 mm</li> </ul>                                                                                                                                                                                                                                                                                                                        | Shinkawa     | Châu Âu/OECD | 2        | cái    |         |
| 108 | Transducer                                | FK-452F1-3-1                | <ul style="list-style-type: none"> <li>- System cable length: 5m</li> <li>- Mounting plate: Screw mount (92×31mm: For VK replacement)</li> <li>- Terminal block: Screw type terminal block (M4)</li> <li>- SENSOR ABNORMAL OUTPUT VOLTAGE: Approx. -0.6VDC (Sensor OPEN/Sensor SHORT)</li> <li>- OUTPUT IMPEDANCE: 50Ω Current 5mA(max.)</li> <li>- CURRENT CONSUMPTION (10kΩ load): Max. -15mA</li> <li>- POWER SUPPLY: -24VDC ± 10%</li> </ul>                 | Shinkawa     | Châu Âu/OECD | 1        | cái    |         |
| 109 | Volume Booster                            | YT 310N1                    | <ul style="list-style-type: none"> <li>- Air Connection Type: NPT</li> <li>- Max Supply Pressure: 1 MPa (10 bar)</li> <li>- Max Sig. / Out Pressure: 0.7 MPa (7 bar)</li> <li>- Signal / Output Pressure Ratio: 1 : 1</li> <li>- Flow Capacity (Cv):</li> <li>+ Exhaust: 5.24</li> <li>+ Output: 4.91</li> <li>- Supply/Output connection: 3/4 NPT</li> <li>- Signal connection: 1/4 NPT</li> <li>- Linearity: ±1% F.S.</li> <li>- Material: Aluminum</li> </ul> | Rotork       | OECD         | 4        | cái    |         |

| STT | Tên vật tư/mô tả                 | Order information (Part N0)        | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nhà Sản xuất    | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|----------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------|----------|--------|---------|
| 110 | Snap acting relay                | YT-520D21                          | <ul style="list-style-type: none"> <li>- Acting type: Double acting</li> <li>- Air Connection type: NPT</li> <li>- Max. Supply Pressure: Max. 1 MPa (10 bar)</li> <li>- Signal Pressure Setting Range: 0.14 to 0.7 MPa (1.4 to 7 bar)</li> <li>- Hysteresis: Below 0.01 MPa (0.1 bar)</li> <li>- Flow Capacity (CV): 0.9</li> <li>- A, B, C port Connection: 1/4 NPT</li> <li>- Signal Connection: 1/4 NPT</li> <li>- Ambient Temperature: -20 to 70 °C (-4 to 158 °F)</li> <li>- Housing Material: Aluminum</li> </ul>                       | Rotork          | OECD         | 1        | cái    |         |
| 111 | Level Transmitter                | SITRANS Probe LR (7ML5430-1AA10-Z) | <ul style="list-style-type: none"> <li>- 2-wire, 6 GHz pulse radar level transmitter for continuous monitoring of liquids and slurries in storage vessels with nominal pressure and temperature, to a range of 20 m (66 ft).</li> <li>- Enclosure/Cable inlet: Plastic, (PBT), 2 x 1/2" NPT</li> <li>- Antenna type/Material: 1 1/2" NPT (Taper), ANSI/ASME B1.20.1], comes with integral 100 mm shield</li> <li>- Approvals: General Purpose, CE, RED, RCM</li> <li>- Communication/Output: 4 ... 20 mA, HART</li> </ul>                     | SIEMENS         | Châu Âu/OECD | 1        | cái    |         |
| 112 | Limit Switch                     | 3SE5162-0CD02                      | <ul style="list-style-type: none"> <li>- Position switch, Metal enclosure XL, 56 mm wide Roller plunger with stainless steel roller 13 mm Device connection 3 x (M20 x 1.5) 2 x (1 NO/1 NC) Quick action contacts IP66/IP67</li> </ul>                                                                                                                                                                                                                                                                                                        | SIEMENS         | Châu Âu/OECD | 1        | cái    |         |
| 113 | Absolute inclination transmitter | KINAX N702                         | <ul style="list-style-type: none"> <li>- Inclination angle: Set to ± 135°</li> <li>- Measuring range: -180° ... 179.9° free programmable</li> <li>- Accuracy: ± 0.2 ° (at +25 °C)</li> <li>- Mounting position: Perpendicular to the measurement object</li> <li>- Electrical connection: Connector M12x1, 4 poles</li> <li>- Housing protection: IP 66 acc. to EN 60 529</li> </ul>                                                                                                                                                          | CAMILE BAUER AG | Châu Âu/OECD | 2        | cái    |         |
| 114 | Inductive sensor                 | IF5811                             | <ul style="list-style-type: none"> <li>- Electrical design: PNP</li> <li>- Output function: normally open</li> <li>- Sensing range [mm]: 7</li> <li>- Housing: threaded type</li> <li>- Operating voltage [V]: 10...30 DC</li> <li>- Current consumption [mA]: &lt; 10</li> <li>- Reverse polarity protection: yes</li> <li>- Switching frequency DC [Hz]: 700</li> <li>- Short-circuit protection: yes</li> <li>- Overload protection: yes</li> <li>- Protection: IP 68; ("Coolant")</li> <li>- Dimensions [mm]: M12 x 1 / L = 60</li> </ul> | IFM             | Châu Âu/OECD | 1        | cái    |         |

| STT | Tên vật tư/mô tả              | Order information (Part N0)                      | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                          | Nhà Sản xuất             | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|-------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------|----------|--------|---------|
| 115 | Pressure Switch               | H100-190                                         | - Pressure Connection: 1/2"<br>- Range: 5 to 30 psi<br>- Proof: 2500 psi<br>Hoặc tương đương Pressure switch UE, H100-190<br>- Adjustable Set Point Range: 0 to 13,8 mbar<br>- Deadband: 0,1 to 0,6 mbar<br>- Over Range Pressure: 13,8 bar<br>- Proof Pressure: 17,2 bar<br>- Two SPDT outputs; internal hex screw adjustment<br>- Pressure connection 1/4" NPT (female)                                                                  | United Electric Controls | Châu Âu/OECD | 1        | cái    |         |
| 116 | Pressure Switch               | J402-358                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                            | United Electric Controls | Châu Âu/OECD | 2        | cái    |         |
| 117 | 4-way directional servo valve | 4WS2EM16-25=200B12T315K8CV-114 (MNR: R901457891) | 4WS2EM16-25-200B12T315K8CV-114<br>MNR: R901457891                                                                                                                                                                                                                                                                                                                                                                                          | Rexroth                  | Châu Âu/OECD | 1        | cái    |         |
| 118 | 4/3 directional servo valve   | 4WS2EM10-52=30B11T210K31CV-114 (MNR: R901433070) | 4WS2EM10-52 30B11T210K31CV-114<br>R901433070                                                                                                                                                                                                                                                                                                                                                                                               | Rexroth                  | Châu Âu/OECD | 1        | cái    |         |
| 119 | Cartridge valve               | LFA 25 D-71/FV (MNR: R900930724)                 | LFA 25 D-71/FV<br>MNR: R900930724                                                                                                                                                                                                                                                                                                                                                                                                          | Rexroth                  | Châu Âu/OECD | 2        | cái    |         |
| 120 | Solenoid Coil                 | MNR: R901175660                                  | - MNR: R901175660                                                                                                                                                                                                                                                                                                                                                                                                                          | Rexroth                  | Châu Âu/OECD | 6        | cái    |         |
| 121 | Level Switch                  | SMC-2-A-2-OP-1-A S/N 170004                      | - Number of contact for control : 2 = 1 point ( alarm DPDT)<br>- Operating temp's & pressure : A = -40 ~ +120 0°C & 10Kg/cm2 (Std)<br>- Wet part material : 2= 316SS<br>- Mounting size : etc<br>- Enclosure: Weather proof (std) - C.s Cover<br>- conduit connection : A= PF 3/4" (Std)<br>(Phải thích hợp để thay thế cho Level Switch model SMC-2-A-2-OP-1-A, S/N 170004, của hãng SEOJIN INSTECH hiện hữu tại nhà máy điện Sông Hậu 1) | SEOJIN INSTECH           | OECD         | 1        | cái    |         |

| STT | Tên vật tư/mô tả                                                  | Order information (Part N0)                                                     | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Nhà Sản xuất | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|-------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------|--------|---------|
| 122 | Cảm biến vị trí (Displacement Sensor)                             | MNR:<br>R901137229                                                              | <ul style="list-style-type: none"> <li>- Measuring range: 100mm</li> <li>- Excitation: 20V at 3000Hz</li> <li>- Linearity (full stroke): <math>\pm 1.0\%</math></li> <li>- Linearity (110% full stroke): <math>\pm 1.5\%</math></li> <li>- Impedance with core at null: A to C 600 ohms <math>\pm 100</math> ohms</li> <li>- Dielectric strength: 500V AC no leakage</li> <li>- Sensitivity: 0.0063 V/mm/V</li> <li>- Magnetically shielded</li> <li>- All parts made from corrosion resistant</li> <li>- Steel of plated to prevent corrosion</li> </ul> | Rexroth      | Châu Âu/OECD | 4        | cái    |         |
| 123 | 4/2 directional seat valve with solenoid actuation                | M-4SEW 10<br>D15/420MG205<br>N9K4/V<br>(R901458149)                             | M-4SEW 10 D15/420MG205N9K4/V<br>MNR: R901458149                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Rexroth      | Châu Âu/OECD | 3        | cái    |         |
| 124 | Directional seat valves, direct operated, with solenoid actuation | M-4SEW 6<br>D37/630MG205<br>N9K4/V<br>MNR:<br>R901431575<br>+MNR:<br>R900324883 | M-4SEW 6 D37/630MG205N9K4/V<br>Bộ Bao gồm:<br>+ MNR: R901431575, số lượng: 01<br>+ MNR: R900324883, số lượng: 01                                                                                                                                                                                                                                                                                                                                                                                                                                          | Rexroth      | Châu Âu/OECD | 1        | Bộ     |         |
| 125 | 4/2 directional valve                                             | 4WE 10<br>D33/CW230N9<br>K4/V<br>MNR:<br>R9000923393                            | 4WE 10 D33/CW230N9K4/V<br>MNR: R9000923393                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Rexroth      | Châu Âu/OECD | 2        | cái    |         |
| 126 | 4/2 directional valves                                            | 4WE 6<br>D62/EW230N9<br>K4/V<br>MNR:<br>R900917825                              | 4WE 6 D62/EW230N9K4/V<br>MNR: R900917825                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Rexroth      | Châu Âu/OECD | 1        | cái    |         |
| 127 | Directional Control valve                                         | D3W001MN1W                                                                      | <ul style="list-style-type: none"> <li>- Directional Control Valve</li> <li>- Basic Valve: NFPA D05 CETOP 05</li> <li>- Actuator: Wet Armature Solenoid</li> <li>- Spool Type: Spool</li> <li>- Spool Position: 2 positions. Operated in position "0"</li> <li>- Seal Compound: Nitrile - Buna N</li> <li>- Solenoid Voltage: 24 VDC</li> <li>- Solenoid Connection: Din without Plug</li> </ul>                                                                                                                                                          | PARKER       | Châu Âu/OECD | 2        | cái    |         |

| STT | Tên vật tư/mô tả   | Order information (Part No) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nhà Sản xuất             | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|--------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------|----------|--------|---------|
| 128 | Temperature Sensor | R122A11G93Q<br>ECB0         | <ul style="list-style-type: none"> <li>-Base model : Double ( Duplex) element</li> <li>-Head &amp; tip shape type : General (Weatherproof) and ungrounded</li> <li>-Element :K (0.4)</li> <li>-Sheath material : 316SS</li> <li>-Sheath outer diameter (mm) : 8.0</li> <li>-Conduit connection: 1/2 NPT</li> <li>-Mounting : 100 mm length</li> <li>- Connection size and connector material : 1/2 and 304SS.</li> <li>- Connection type : NPT</li> <li>- Insert length : 200 mm</li> <li>- Type J402K, dual switch output with internal hex crew adjustment.</li> <li>-Adjustable Set point Range : 0.2 to 2.1 bar</li> <li>-Deadband : 34.5 to 137.9 mbar</li> <li>- Working Pressure : -1 to 6.9 bar</li> </ul> | WISE                     | OECD               | 1        | cái    |         |
| 129 | Pressure Switch    | J402K-S147B                 | <ul style="list-style-type: none"> <li>- Type J402K, dual switch output with internal hex crew adjustment.</li> <li>-Adjustable Set point Range : 0.2 to 2.1 bar</li> <li>-Deadband : 34.5 to 137.9 mbar</li> <li>- Working Pressure : -1 to 6.9 bar</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | United Electric Controls | Châu Âu/OECD       | 1        | cái    |         |
| 130 | Gas detector       | GTD-2000EX                  | <ul style="list-style-type: none"> <li>- GTD-2000EX</li> <li>- Measuring Type: Diffusion type</li> <li>- Measuring Value Display: Local Digital LCD</li> <li>- Detectable Gas: Flammable gas</li> <li>- Measuring Range: 0-100% LEL</li> <li>- Accuracy: <math>\pm 3\%</math> / Full Range</li> <li>- Basic Interface: Analog 4-20mA current interface</li> <li>- HART Interface: HART REV7 (Option)</li> </ul> <p>Phải phù hợp để thay thế cho cảm biến đo rò rỉ khí H2 model GTD-2000EX (Serial No. AUBB2101190), Gastron hiện hữu nhà máy điện Sông Hậu 1 đang sử dụng.</p>                                                                                                                                     | GASTRON                  | Châu Âu/OECD       | 1        | cái    |         |
| 131 | Inductive Sensor   | NBN40-U1-A2-M               | <ul style="list-style-type: none"> <li>- Switching function: complementary</li> <li>- Output type: PNP</li> <li>- Rated operating distance: 40 mm</li> <li>- Output type: 4-wire</li> <li>- Operating voltage UB: 10 ... 60 V DC</li> <li>- Switching frequency f: 0 ... 150 Hz</li> <li>- Reverse polarity protection: reverse polarity protected</li> <li>- Short-circuit protection: pulsing</li> <li>- Operating current IL: 0 ... 200 mA</li> <li>- Degree of protection: IP68</li> </ul>                                                                                                                                                                                                                     | PEPPERL+FUCHS            | Châu Âu/OECD/ASEAN | 20       | cái    |         |

| STT | Tên vật tư/mô tả                 | Order information (Part N0)             | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Nhà Sản xuất  | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|----------------------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------|--------|---------|
| 132 | Inductive sensor                 | NBN40-ULK-NO                            | <ul style="list-style-type: none"> <li>- Switching function: Normally closed (NC)</li> <li>- Output type: NAMUR</li> <li>- Rated operating distance: sn 40 mm</li> <li>- Output type: 2-wire</li> <li>- Nominal voltage <math>U_o</math>: 8.2 V (Ri approx. 1 k<math>\Omega</math>)</li> <li>- Switching frequency f: 0 ... 100 Hz</li> <li>- Reverse polarity protection: reverse polarity protected</li> <li>- Short-circuit protection: yes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PEPPERL+FUCHS | Châu Âu/OECD/ASEAN | 2        | cái    |         |
| 133 | Belt conveyor - Pull Rope Switch | NTS001<br>(Order number 91.064 084.001) | <ul style="list-style-type: none"> <li>- Designation: Pull-rope emergency stop switch type NTS Emergency stop device with latching function</li> <li>- Type of actuation: Bidirectional; springs-loaded ("snap action")</li> <li>- Suited for: Control units and systems in accordance with DIN EN 60204</li> <li>- Mounting: 4 slotted holes for M8 screws</li> <li>- Pull-rope length: Up to approx. 100 m</li> <li>- Actuation force: 30 N <math>\pm</math> 10 N</li> <li>- Rated insulation voltage <math>U_i</math>: 400 V</li> <li>- Conventional thermal current Ith: 16 A</li> <li>- Protection rating: IP 67 in accordance with EN 60529</li> </ul>                                                                                                                                                                                                                                                                                                                                                                             | KIEPE         | Châu Âu/OECD       | 4        | cái    |         |
| 134 | Limit Switch                     | ML461-22Y                               | <ul style="list-style-type: none"> <li>- General data - Features               <ul style="list-style-type: none"> <li>+ Number of normally closed (NC) 2;</li> <li>+ Number of normally open (NO) 2</li> </ul> </li> <li>- Mechanical data               <ul style="list-style-type: none"> <li>+ Actuating element: Roller lever;</li> <li>+ Mechanical life, minimum: 5,000,000 operations</li> <li>+ Actuating angle, from left of switch axis: 30 °;</li> <li>+ Actuating angle, from right of switch axis: 30 °;</li> </ul> </li> <li>- Mechanical data - Dimensions               <ul style="list-style-type: none"> <li>+ Length of sensor 64 mm ;</li> <li>+ Width of sensor 118 mm;</li> <li>+ Height of sensor 248 mm;</li> </ul> </li> <li>- Electrical data               <ul style="list-style-type: none"> <li>+ Utilisation category AC-15: 230 VAC</li> <li>+ Utilisation category AC-15: 4 A</li> <li>+ Switching principle: Snap action</li> <li>+ Material of the contacts, electrical: Silver</li> </ul> </li> </ul> | SCHMERSAL     | Châu Âu/OECD       | 2        | cái    |         |

| STT | Tên vật tư/mô tả                                                                                                                  | Order information (Part N0)              | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                 | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 135 | Inductive Proximity Sensor                                                                                                        | PRT12-4DC                                | <ul style="list-style-type: none"> <li>- Inductive proximity sensor</li> <li>- Cylindrical type</li> <li>- Connection: DC 2-wire, cable type</li> <li>- Power supply: 12-24VDC</li> <li>- Sensing distance: 4mm</li> <li>- Standard sensing target: 12×12×1mm(Iron)</li> <li>- Setting distance: 0 to 2.8mm</li> <li>- Response frequency: 500Hz</li> <li>- Control output: 2 to 100mA</li> </ul> | Autonics     | Châu Âu/OECD/ASEAN | 2        | cái    |         |
| 136 | Card Holder                                                                                                                       | VT 3002-1-2X/64G (MNR: R900991843)       | <ul style="list-style-type: none"> <li>- Card holder</li> <li>- Single Euro-format</li> <li>- 64-pin socket connector, form G</li> </ul>                                                                                                                                                                                                                                                          | Rexroth      | Châu Âu/OECD       | 1        | cái    |         |
| 137 | 4/3-directional spool valve Hydraulically operated                                                                                | 4WHE 25 J S01/V                          | <ul style="list-style-type: none"> <li>- 4/3-directional spool valve, hydraulically operated</li> <li>- Control type: external pilot drain and supply</li> <li>- Nominal size: 25</li> <li>- Spool symbol : J</li> <li>- Series: S01 = CETOP 4.2-4 P05-320 (Standard)</li> <li>- Sealing material: FKM (standard)</li> </ul>                                                                      | HYDAC        | Châu Âu/OECD       | 1        | cái    |         |
| 138 | 4/3 directional spool valve solenoid-operated, direct-acting                                                                      | 4WE 6 J S01 24DG/V - 6063148             | <ul style="list-style-type: none"> <li>- Solenoid-operated directional valve with 4 main ports, direct-acting</li> <li>- Nominal size: 6</li> <li>- Spool symbol: J</li> <li>- Rated voltage of the solenoid coil: 24 VDC</li> <li>- Electrical connection: device plug, DIN EN 175301-803 A</li> <li>- Sealing material: FKM</li> </ul>                                                          | HYDAC        | Châu Âu/OECD       | 1        | cái    |         |
| 139 | 4/3 proportional directional valves direct operated, with electrical position feedback, without/with integrated electronics (OBE) | 4WE 6 V16-22/G24K4/V-822 MNR: R901036556 | <ul style="list-style-type: none"> <li>- 4WE 6 V16-22/G24K4/V-822</li> <li>- MNR: R901036556</li> </ul>                                                                                                                                                                                                                                                                                           | Rexroth      | Châu Âu/OECD       | 1        | cái    |         |

| STT | Tên vật tư/mô tả                             | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nhà Sản xuất  | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|----------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------|--------|---------|
| 140 | Level Switch                                 | 76951-6011                  | <ul style="list-style-type: none"> <li>+ Current consumption: ca. 70 mA at 30 V DC (all relays in working position)</li> <li>+ Switching output 1, 2 and 3: relays</li> <li>+ Contact material: gilded silver alloy</li> <li>+ Switching voltage max: 150 V DC, 252 V AC</li> <li>+ Switching current min: 0.1 mA, 100 mV DC</li> <li>+ Switching capacity: 90 W at 30 V DC, 750 W at 250 V AC</li> <li>+ Protective system acc. DIN 40 050: IP 65</li> <li>- Enclosure material: Light alloy die-casting</li> <li>- Material of the contacts, electrical: Silver</li> <li>- Safety functions: Yes</li> <li>- Number of auxiliary contacts: 1</li> <li>- Number of safety contacts: 1</li> <li>- Actuating element: Roller lever</li> <li>- Mechanical life, minimum: 30,000,000 Operations</li> <li>- Actuating speed, maximum 2.5 m/s</li> <li>- Degree of protection: IP67</li> <li>- Switching principle: Snap action</li> <li>- Switching frequency: 5,000 /h</li> </ul> | BIJUR DELIMON | Châu Âu/OECD       | 4        | cái    |         |
| 141 | Limit Switch                                 | Z4V7H 335-11Z-2138          | <ul style="list-style-type: none"> <li>- Enclosure material: Light alloy die-casting</li> <li>- Material of the contacts, electrical: Silver</li> <li>- Safety functions: Yes</li> <li>- Number of auxiliary contacts: 1</li> <li>- Number of safety contacts: 1</li> <li>- Actuating element: Roller lever</li> <li>- Mechanical life, minimum: 30,000,000 Operations</li> <li>- Actuating speed, maximum 2.5 m/s</li> <li>- Degree of protection: IP67</li> <li>- Switching principle: Snap action</li> <li>- Switching frequency: 5,000 /h</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                      | SCHMERSAL     | Châu Âu/OECD/ASEAN | 2        | cái    |         |
| 142 | Frequency Transducer/Pulse Counter 1-channel | IMX12-FI01-1SF-1R-0/24VDC   | <ul style="list-style-type: none"> <li>- Operating voltage: 10...30 VDC</li> <li>- Power consumption: ≤ 3 W</li> <li>- Monitoring range/Setting range: ≤ 0.0006...1200000 min<sup>-1</sup></li> <li>- No-load voltage: 8.2 VDC</li> <li>- Input resistance: 1 kΩ</li> <li>- Switch-on threshold: 1.75 mA</li> <li>- Switch-off threshold: 1.55 mA</li> <li>- Wire breakage threshold: ≤ 0.06 mA</li> <li>- Short-circuit threshold: ≥ 6.4 mA</li> <li>- Contact quality: AgNi</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Turck         | Châu Âu/OECD       | 2        | cái    |         |
| 143 | Magnetic Field Sensor                        | BIM-G18-Y1/S926             | <ul style="list-style-type: none"> <li>- Output function: 2-wire, NAMUR</li> <li>- Switching frequency: 0.2 kHz</li> <li>- Voltage: Nom. 8.2 VDC</li> <li>- Current consumption non-actuated: ≤ 1.2 mA</li> <li>- Actuated current consumption: ≥ 2.1 mA</li> <li>- Internal capacitance (Ci)/inductance (Li): 240 nF/2 μH</li> <li>- Design: Threaded barrel, M18 × 1</li> <li>- Active area material: Plastic, PA12-GF30</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Turck         | Châu Âu/OECD       | 2        | cái    |         |

| STT | Tên vật tư/mô tả | Order information (Part N0)          | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nhà Sản xuất    | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|------------------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------|----------|--------|---------|
| 144 | Evaluation Unit  | DUE-1K-00<br>(Part number: 21195609) | <ul style="list-style-type: none"> <li>- Signal outputs: BE..brake</li> <li>- Out 1: 4-20mA</li> <li>- FCT1: DC24V (150 mA)</li> <li>- Wear1: DC 24V (150 mA)</li> <li>- Current consumption: Min 40mA - Max 190mA</li> <li>- Supply voltage: DC 24V (±15%)</li> <li>- Electromagnetic compatibility: DIN EN 61800-3</li> <li>- Degree of protection: IP20 (in closed terminal box max. IP66)</li> <li>+ Rated switching distance 10 mm</li> <li>+ Secured operating distance <math>\leq (0.81 \times S_n)</math> mm</li> <li>+ Hysteresis: 3...15 %</li> <li>+ Operating voltage: 10...65 VDC;</li> <li>+ DC rated operational current: <math>\leq 200</math> mA;</li> <li>+ Short-circuit protection: yes / Cyclic</li> <li>+ Wire breakage/Reverse polarity protection: yes/Complete</li> <li>+ Output function: 4-wire, Complementary contact, PNP</li> <li>+ Design: Threaded barrel, M30 x 1.5;</li> <li>+ Active area material: Plastic, PBT;</li> <li>+ Protection class: IP68;</li> </ul> | SEW             | Châu Âu/OECD/ASEAN | 10       | cái    |         |
| 145 | Inductive Sensor | BI10U-M30-VP4X<br>(1582201)          | <ul style="list-style-type: none"> <li>- Sensitivity: 2,85 mV/V <math>\pm</math> 2,85 PV/V</li> <li>- Combined error: <math>\pm 0.02</math> %</li> <li>- Creep (30 m): <math>\pm 0.024</math> %</li> <li>- Maximum number of load cell intervals: 3000</li> <li>- Minimum load cell verification interval: Emax/20000</li> <li>- Input resistance:</li> <li>- Output resistance:</li> <li>- Zero signal: <math>\pm 1\%</math></li> <li>- Max. supply voltage: 60V</li> <li>- Protection class: IP 68</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TURCK           | Châu Âu/OECD/ASEAN | 3        | cái    |         |
| 146 | LoadCell         | RTN IT C3                            | <ul style="list-style-type: none"> <li>- Detection: Optical detection (E)</li> <li>- Power Supply: 11 ... 27 Vdc</li> <li>- Full Resolution: 28 bit</li> <li>- Shaft diameters available: 10mm with keyway</li> <li>- Connectors: connectors radial, cable glands radial (SSI)</li> <li>- Steps per Turn: 8192</li> <li>- Nuber of turns: 32768</li> <li>- Protection Class: IP54</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Schenck process | Châu Âu/OECD       | 2        | cái    |         |
| 147 | Encoder          | CDV75M-00037                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TR Electronic   | Châu Âu/OECD       | 1        | cái    |         |

| STT | Tên vật tư/mô tả                                                                                                  | Order information (Part N0)                             | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nhà Sản xuất | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------|--------|---------|
| 148 | Radar sensor                                                                                                      | PS69.IXBXCC<br>HZ/RMXXX                                 | <ul style="list-style-type: none"> <li>- Plastic horn antenna with mounting strap</li> <li>- 4 ... 20 mA/HART - two-wire</li> <li>- Measuring range up to: 120 m (393.7 ft)</li> <li>- Deviation: ±5 mm</li> <li>- Process fitting: thread G1½</li> <li>- Process pressure -1 ... 20 bar (-100 ... 2000 kPa/-14.5 ... 290.1 psig)</li> <li>- Process temperature: -40°C ... +200°C</li> <li>- Operating voltage: 12...35V</li> <li>- Protection: IP67</li> <li>- Phải có khả năng lắp đặt, kết nối, tương thích với hệ thống hiện hữu tại Nhà máy điện Sông Hậu 1.</li> </ul> | VEGA         | Châu Âu/OECD | 2        | cái    |         |
| 149 | Proportional directional valve, pilot operated with electrical position feedback and integrated electronics (OBE) | 4WRKE 16 W6-125L-35/6EG24ETK3 I/F1D3V (MNR: R901218519) | <ul style="list-style-type: none"> <li>- 4WRKE 16 W6-125L-35/6EG24ETK3 I/F1D3V</li> <li>- MNR: R901218519</li> <li>- Nominal size 16</li> <li>- Symbols: w6</li> <li>- Nominal flow: 125</li> <li>- Characteristic curve form: Linear</li> <li>- Proportional solenoid with removable coil</li> <li>- Supply voltage: 24 VDC</li> <li>- Interfaces: Com./act. value 4 to 20 mA</li> <li>- With pressure reducing valve ZDR 6 DP0-4X/40YM-W80 (fixed setting)</li> <li>- FKM seals</li> </ul>                                                                                  | Rexroth      | Châu Âu/OECD | 1        | Bộ     |         |
| 150 | Encoder                                                                                                           | 6FX2001-5FN25                                           | <ul style="list-style-type: none"> <li>- Operating voltage Up: DC 10 ... 30 V</li> <li>- Interface: PROFINET IO with RT / IRT</li> <li>- Short-circuit strength: Yes</li> <li>- Transmission rate: 100 Mbit/s</li> <li>- Resolution: 27 bit (8192 increments x 16384 rpm)</li> <li>+ Shaft version: Solid shaft</li> <li>+ Shaft diameter: 6 mm</li> <li>+ Shaft length 10 mm</li> <li>+ Angular acceleration, max: 100000 rad/s²</li> <li>- Speed max.</li> <li>+ With ± 1 bit accuracy: 5800 rpm</li> <li>+ Max. permissible speed (mech.): 6000 rpm</li> </ul>             | SIEMENS      | Châu Âu/OECD | 1        | cái    |         |

| STT | Tên vật tư/mô tả                   | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nhà Sản xuất  | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------|--------|---------|
| 151 | Inductive proximity switches       | NBN3-F69-E2-V1-Y109463      | <ul style="list-style-type: none"> <li>- Switching element function: PNP</li> <li>- Operating voltage UB: 10 ... 30 V</li> <li>- Switching frequency f: 0 ... 800 Hz</li> <li>- Reverse polarity protection: yes</li> <li>- Short circuit protection: pulsing</li> <li>- Operating current IL: 0 ... 100 mA</li> <li>- No-load supply current IO: ≤ 10 mA</li> <li>- Protection degree: IP65</li> </ul>                                                                                                                                                                                                                                                                              | BIJUR DELIMON | Châu Âu/OECD       | 2        | cái    |         |
| 152 | Contact module                     | 3SU1400-1AA10-3CA0          | Contact module with 1 contact element, 1 NC, spring-type terminal, for front plate mounting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Siemens       | Châu Âu/OECD       | 6        | cái    |         |
| 153 | Relay                              | RR2P-UL AC220               | <ul style="list-style-type: none"> <li>- Pin Terminal: DPDT</li> <li>- Style: With Indicator</li> <li>- Rated Voltage (V): 220 AC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | IDEC          | Châu Âu/OECD/ASEAN | 6        | cái    |         |
| 154 | Signal Beacon & Electronic Sounder | SHDS-WS                     | <ul style="list-style-type: none"> <li>- Volt: 220VAC</li> <li>- Current: 220mA</li> <li>- Xenon Lamp</li> <li>+ Spec: 200V-550V</li> <li>+ Color: A-Amber</li> <li>- Sound pattern and volume: WS-5 Warning sounds: Max.114dB</li> <li>- Flashing rate : 60-80 flashes/min</li> <li>- Protection rating: IP66</li> </ul>                                                                                                                                                                                                                                                                                                                                                            | Q light       | OECD               | 5        | cái    |         |
| 155 | Inductive sensor                   | XSAV11373                   | <ul style="list-style-type: none"> <li>- Sensor type: Inductive proximity sensor</li> <li>- Product specific application: Rotation monitoring</li> <li>- Sensor design: Cylindrical M30</li> <li>- Material: Metal</li> <li>- Wiring technique: 3--wire</li> <li>- [Sn] nominal sensing distance :10 mm</li> <li>- Discrete output function: 1 NC</li> <li>- Discrete output type: PNP</li> <li>- Electrical connection Cable</li> <li>- [Us] rated supply voltage: 12...48 V DC with reverse polarity protection</li> <li>- Switching capacity in mA ≤ 200 mA with overload and short-circuit protection</li> <li>- IP degree of protection IP67 conforming to IEC 60529</li> </ul> | SCHNEIDER     | Châu Âu/OECD       | 5        | cái    |         |

| STT | Tên vật tư/mô tả           | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nhà Sản xuất  | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|----------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------|--------|---------|
| 156 | Inductive proximity sensor | XSS18B1PBL2                 | <ul style="list-style-type: none"> <li>- Sensor type: Inductive proximity sensor</li> <li>- Sensor design: Cylindrical M18</li> <li>- Size: 39 mm</li> <li>- Material: Metal</li> <li>- Wiring technique: 3-wire</li> <li>- [Sn] nominal sensing distance: 5 mm</li> <li>- Discrete output function: 1 NC</li> <li>- Discrete output type: PNP</li> <li>- Electrical connection Cable</li> <li>- [Us] rated supply voltage: 12...24 V DC with reverse polarity protection</li> <li>- Switching capacity in mA : ≤ 200 mA DC with overload and short-circuit protection:</li> <li>- IP degree of protection: IP68 double insulation conforming to IEC 60529</li> </ul> | TELEMECANIQUE | Châu Âu/OECD/ASEAN | 1        | cái    |         |
| 157 | Inductive sensor           | NBB15-30GM50-E2-V1-3G-3D    | <ul style="list-style-type: none"> <li>- Switching function: Normally open (NO)</li> <li>- Output type: PNP</li> <li>- Rated operating distance sn: 15 mm</li> <li>- Output polarity: DC</li> <li>- Output type: 3-wire</li> <li>- Operating voltage UB: 10 ... 30 V</li> <li>- Switching frequency f: 0 ... 200 Hz</li> <li>- Reverse polarity protection: reverse polarity protected</li> <li>- Short-circuit protection: pulsing</li> <li>- Operating current IL: 0 ... 200 mA</li> <li>- Degree of protection: IP67</li> <li>- Length: 50 mm</li> <li>- Diameter: 30 mm</li> </ul>                                                                                | PEPPERL+FUCHS | Châu Âu/OECD/ASEAN | 3        | cái    |         |
| 158 | Safety relay               | 3TK2826-1CW32               | <ul style="list-style-type: none"> <li>- SIRIUS safety relay with relay enabling circuits (EC) 24...240 V UC, 45 mm overall width screw terminal EC instantaneous: 2 NO EC delayed: 2 SC: 3 Switch with 8 functions Basic device Maximum achievable PL according to EN 13849-1: Maximum achievable SIL according to IEC 61508: 3</li> </ul>                                                                                                                                                                                                                                                                                                                           | Siemens       | Châu Âu/OECD       | 2        | cái    |         |

| STT | Tên vật tư/mô tả | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nhà Sản xuất  | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------|--------|---------|
| 159 | Limit switch     | XCKJ10541H29                | <ul style="list-style-type: none"> <li>- Product or component type: Limit switch</li> <li>- Body type: Fixed</li> <li>- Head type: Rotary head</li> <li>- Material: Metal</li> <li>- Cable entry: 1 entry tapped for M20 x 1.5 cable gland</li> <li>- Contacts type and composition: 1 NO + 1 NC</li> <li>- Contacts operation: Snap action</li> <li>- Switch actuation By 30° cam</li> <li>- Width: 40 mm</li> <li>- Height: 77 mm</li> <li>- Depth: 44 mm</li> <li>- IP degree of protection IP66</li> </ul>                                                                                                                                                       | TELEMECANIQUE | Châu Âu/OECD/ASEAN | 2        | cái    |         |
| 160 | Pressure Switch  | P536.6.B.3.E.B.<br>H.062.30 | <ul style="list-style-type: none"> <li>- Base model: Indicating type pressure switch (Dual setpoint)</li> <li>- Nominal diameter (mm): 150</li> <li>- Type of mounting: Bottom connection, surface, case mounting plate</li> <li>- Accuracy class: <math>\pm 1.0</math> % of full scale</li> <li>- Process connection: <math>\frac{1}{2}</math>"</li> <li>- Connection type: PF</li> <li>- Unit: bar</li> <li>- Span range: 0-250 bar</li> <li>- Pressure connection material and dial color: 316SS and 2 colors</li> </ul>                                                                                                                                          | Wise          | OECD               | 1        | cái    |         |
| 161 | Pressure Switch  | 903.12.72.800.0<br>0.07     | <ul style="list-style-type: none"> <li>- Custom build code: Large adjustable switching differential, with display and internal adjustment screw</li> <li>- Microswitch: High vibration resistance</li> <li>- Range [bar]: -0.9 ... 1.5</li> <li>- Over pressure [bar]: 10</li> <li>- Burst pressure [bar]: 13</li> <li>- Sensor material: Bellows stainless steel 1.4435</li> <li>- Sensor housing material: Brass, nickel-plated</li> <li>- Thread: G1/4" female</li> <li>- Fixing: Direct on sensor or housing</li> <li>- Accessories: Screwed cable gland M20x1.5</li> <li>- Repeatability: <math>\pm 1.0</math> % FS typ.</li> <li>- Protection: IP65</li> </ul> | TRAFAG        | Châu Âu/OECD       | 1        | cái    |         |

| STT | Tên vật tư/mô tả | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nhà Sản xuất   | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|----------|--------|---------|
| 162 | Pressure Switch  | 903.12.77.803.0<br>0.07     | <ul style="list-style-type: none"> <li>- Custom build code: Large adjustable switching differential, with display and internal adjustment screw</li> <li>- Microswitch: High vibration resistance</li> <li>- Range [bar]: 0...6</li> <li>- Over pressure [bar]: 12</li> <li>- Burst pressure [bar]: 26</li> <li>- Sensor material: Bellows stainless steel 1.4435</li> <li>- Sensor housing material: Brass, nickel-plated</li> <li>- Thread: G1/4" female</li> <li>- Fixing: Direct on sensor or housing</li> <li>- Accessories: Screwed cable gland M20x1.5</li> <li>- Repeatability: <math>\pm 1.0</math> % FS typ.</li> <li>- Protection: IP65</li> </ul>  | TRAFAG         | Châu Âu/OECD | 1        | cái    |         |
| 163 | Pressure Switch  | 903.12.78.805.0<br>0.07     | <ul style="list-style-type: none"> <li>- Custom build code: Large adjustable switching differential, with display and internal adjustment screw</li> <li>- Microswitch: High vibration resistance</li> <li>- Range [bar]: 0...10</li> <li>- Over pressure [bar]: 24</li> <li>- Burst pressure [bar]: 36</li> <li>- Sensor material: Bellows stainless steel 1.4435</li> <li>- Sensor housing material: Brass, nickel-plated</li> <li>- Thread: G1/4" female</li> <li>- Fixing: Direct on sensor or housing</li> <li>- Accessories: Screwed cable gland M20x1.5</li> <li>- Repeatability: <math>\pm 1.0</math> % FS typ.</li> <li>- Protection: IP65</li> </ul> | TRAFAG         | Châu Âu/OECD | 1        | cái    |         |
| 164 | Level Switch     | FTI55-AAC2RGJ43D1G          | <ul style="list-style-type: none"> <li>Approval: Non-hazardous areas</li> <li>Inactive length L3: Not selected</li> <li>Active length L1: 250mm</li> <li>Insulation: 75 mm L2, partially insulated PPS, max. 180 °C</li> <li>Process connection: RGJ NPT 1½</li> <li>Electronics; output: FEI54; relay DPDT, 19 to 253VAC</li> <li>Housing: F17 aluminum IP66, NEMA4X</li> <li>Cable entry: Thread NPT ¾</li> <li>Probe design: Compact</li> </ul> <p>(Phù hợp để thay thế cho Level Switch model: FTI55-AAC2RGJ43D1G, S/N: NA0006210FE hiện hữu tại Nhà máy Nhiệt điện Sông Hậu 1)</p>                                                                        | Endress+Hauser | Châu Âu/OECD | 1        | cái    |         |

| STT | Tên vật tư/mô tả        | Order information (Part No)       | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nhà Sản xuất   | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|-------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|----------|--------|---------|
| 165 | Radar measurement       | FMR57-<br>AAACDDBDA<br>6RGJ1+AAZ1 | <ul style="list-style-type: none"> <li>- Approval: Non-hazardous area</li> <li>- Power Supply; Output: 2-wire; 4-20mA HART</li> <li>- Display, Operation: SD02 4-line, push buttons + data backup function</li> <li>- Housing: GT20 dual compartment, Alu, coated</li> <li>- Electrical Connection: Thread NPT1/2, IP66/68 NEMA4X/6P</li> <li>- Antenna: Horn 100mm/4"</li> <li>- Seal: A6 FKM Viton GLT, -40...200°C/-40...392°F</li> <li>- Process Connection: Thread ANSIMNPT1-1/2, 316L</li> <li>- Air Purge Connection: G1/4</li> <li>- Additional Operation Language: AA English</li> <li>- Marking: Z1 Tagging (TAG).</li> </ul> Phải có khả năng lắp đặt level transmitter endress+hauser, (FMR57-AAACDDBDA6RGJ1+AAZ1; Sensor No: NA000221139) hiện hữu nhà máy điện Sông Hậu 1 đang sử dụng. | Endress+Hauser | Châu Âu/OECD | 1        | cái    |         |
| 166 | VALVE UNIT FOR EWD 330  | 1630-1241-00                      | Part No: 1630-1241-00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Atlas Copco    | Châu Âu/OECD | 2        | Bộ     |         |
| 167 | Pressure sensor         | 1089962596                        | - Part No: 1089962596                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Atlas Copco    | Châu Âu/OECD | 3        | cái    |         |
| 168 | Level Sensor            | P/N:<br>1089065957                | Part No: 1089065957                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Atlas Copco    | Châu Âu/OECD | 2        | cái    |         |
| 169 | Solenoid valve          | 1089943918                        | <ul style="list-style-type: none"> <li>- Power supply; 230V 50-60 Hz</li> <li>- G1/4 PN0-5bar</li> </ul> Part No: 1089943918                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Atlas Copco    | Châu Âu/OECD | 2        | cái    |         |
| 170 | Solenoid valve          | 1089943916                        | <ul style="list-style-type: none"> <li>- Power supply; 230V 50-60 Hz</li> <li>- G1/4 PN0-16bar</li> </ul> Part No: 1089943916                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Atlas Copco    | Châu Âu/OECD | 2        | cái    |         |
| 171 | Universal Driver Module | EXD-U01<br>804750                 | <ul style="list-style-type: none"> <li>- Supply voltage: 24 VAC ±10%, 50-60 Hz</li> <li>- Protection class: IP20</li> <li>- Approvals: EMC: EN 61326-1, EN50081, EN50082</li> <li>- Analog input signal: 4-20 mA</li> <li>- Burden: 364Ohm</li> <li>- Analog input signal: 0-10 V</li> <li>- Impedance: 27 kΩ</li> <li>- Digital input: 24 VAC ±10%, 50-60 Hz</li> <li>- 24VDC ±10%</li> <li>- Connection to EX4...EX8: via 4 wires cable, AWG20/22</li> <li>- Housing: Aluminium</li> </ul>                                                                                                                                                                                                                                                                                                          | Emerson        | Châu Âu/OECD | 6        | cái    |         |
| 172 | Temperature sensor      | 1089-0574-70<br>PT1000            | Part No: 1089-0574-70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Atlas Copco    | Châu Âu/OECD | 1        | cái    |         |

| STT | Tên vật tư/mô tả      | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|-----------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 173 | Filter Regulator      | R412007209                  | <ul style="list-style-type: none"> <li>- Regulator type: Diaphragm-type pressure regulator</li> <li>- Port Size: G1/2</li> <li>- Flow: 5100 l/min</li> <li>- Adjustment range min./max: 0,5 ... 8 bar</li> <li>- Condensate drain: semi-automatic, open without pressure</li> <li>- Reservoir: Polycarbonate</li> <li>- Protective guard: Polyamide</li> <li>- Thread connection: NPTF</li> <li>- Product series: 651</li> <li>- Revision letter: A</li> <li>- Product type: Filter/Regulator - Particulate</li> <li>- Elements: 5 µm (White)</li> <li>- Bowl type: Metal bowl with sight gauge (glass)</li> <li>- Port size: 1/4</li> <li>- Pressure range: 0.5...10bar</li> <li>- Options: Side Mounting Brackets</li> <li>- Drain type: Manual/Semi-automatic drain</li> </ul> | AVENTICS     | Châu Âu/OECD       | 2        | cái    |         |
| 174 | Filter Regulator      | 8651APBL2Q101HN             | <ul style="list-style-type: none"> <li>- Version: Spool valve</li> <li>- Blocking principle: Single base plate principle</li> <li>- Sealing principle: Soft sealing</li> <li>- ATEX class G: II 2G2D T4 X</li> <li>- Standards: ISO 5599-1, ISO 1</li> <li>- Nominal flow Qn: 1400 l/min</li> <li>- Compressed air connection: Base plate ISO 5599-1</li> <li>- Working pressure min./max: -0,95 ... 16 bar</li> <li>- Control pressure min./max: 3 ... 16 bar</li> <li>- Max. particle size: 50 µm</li> <li>- Flow conductance: 5,2 l/(s*bar)</li> </ul>                                                                                                                                                                                                                         | AVENTICS     | Châu Âu/OECD/ASEAN | 10       | cái    |         |
| 175 | 5/2 Directional valve | 5811130000                  | <ul style="list-style-type: none"> <li>- Version: Spool valve</li> <li>- Blocking principle: Single base plate principle</li> <li>- Sealing principle: Soft sealing</li> <li>- ATEX class G: II 2G2D T4 X</li> <li>- Standards: ISO 5599-1, ISO 1</li> <li>- Nominal flow Qn: 1400 l/min</li> <li>- Compressed air connection: Base plate ISO 5599-1</li> <li>- Working pressure min./max: -0,95 ... 16 bar</li> <li>- Control pressure min./max: 3 ... 16 bar</li> <li>- Max. particle size: 50 µm</li> <li>- Flow conductance: 5,2 l/(s*bar)</li> </ul>                                                                                                                                                                                                                         | AVENTICS     | Châu Âu/OECD       | 2        | cái    |         |

| STT | Tên vật tư/mô tả     | Order information (Part N0)                                       | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nhà Sản xuất  | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|----------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------|--------|---------|
| 176 | Pressure Transmitter | P320 7MF0300-1FE11-5AF2-Z A00+C11+C12+C14+E00+H02+T03+Y01+Y21+Y15 | <ul style="list-style-type: none"> <li>- Type: SITRANS P320</li> <li>- Voltage supply: 10.5 ... 45 Vdc</li> <li>- Communication: HART, 4...20 mA</li> <li>- Measuring cell filling: Silicone oil</li> <li>- Maximum measuring span: 250 mbar (3.6 psi)</li> <li>- Process connection: Female thread 1/2-14 NPT</li> <li>- Wetted parts materials: process connection, seal diaphragm: Stainless steel 316L/1.4404, alloy C276/2.4819</li> <li>- Non-wetted parts materials: Die-cast aluminum</li> <li>- Electrical connections/cable entries: 2 x M20 x 1.5</li> <li>- Cable glands included: Plastic</li> <li>- Mounting bracket: Stainless steel 1.4301/304</li> <li>- Quality inspection certificate, 5-point factory calibration (IEC 62828-2)</li> <li>- Inspection certificate (EN 10204-3.1) - Material of pressurized and wetted parts</li> <li>- Factory certificate (EN 10204-2.2) - Wetted parts</li> <li>- Local operation/display: With display (lid with glass pane)</li> </ul> | SIEMENS       | Châu Âu/OECD       | 2        | cái    |         |
| 177 | Inductive sensor     | NI12-12GM40-E2                                                    | <ul style="list-style-type: none"> <li>- Switching function: Normally open (NO)</li> <li>- Output type: PNP</li> <li>- Rated operating distance sn: 2 mm</li> <li>- Output polarity: DC</li> <li>- Output type: 3-wire</li> <li>- Operating voltage UB: 10 ... 60 V;</li> <li>- Switching frequency f: 0 ... 3000 Hz</li> <li>- Hysteresis H: 1 ... 10 typ. 3 %</li> <li>- Reverse polarity protection: reverse polarity protected</li> <li>- Short-circuit protection: pulsing</li> <li>- Operating current IL: 0 ... 200 mA</li> <li>- Sensing face: PBT</li> <li>- Degree of protection: IP67</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                    | Pepperl+Fuchs | Châu Âu/OECD/ASEAN | 1        | cái    |         |

| STT | Tên vật tư/mô tả     | Order information (Part No)                                     | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nhà Sản xuất | Xuất xứ      | Số lượng | Đơn vị | Ghi chú |
|-----|----------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------|--------|---------|
| 178 | Pressure Transmitter | P320 7MF0300-1QU01-5AF2-Z316L/1.4404<br>A00+E00+H01+Y01+Y21+Y15 | <ul style="list-style-type: none"> <li>- Type: SITRANS P320</li> <li>- Voltage supply: 10.5 ... 45 Vdc</li> <li>- Communication: HART, 4...20 mA</li> <li>- Measuring cell filling: Silicone oil</li> <li>- Maximum measuring span: 16 bar (232 psi)</li> <li>- Process connection: Female thread Version for diaphragm seal pressure</li> <li>- Wetted parts materials: process connection, seal diaphragm: Stainless steel 316L/1.4404, stainless steel 316L/1.4404</li> <li>- Non-wetted parts materials: Die-cast aluminum</li> <li>- Enclosure: dual chamber device</li> <li>- Type of protection: Without Ex</li> <li>- Electrical connections/cable entries: 2 x M20 x 1.5</li> <li>- Cable glands included: Plastic</li> <li>- Mounting bracket: Stainless steel 1.4301/304</li> <li>- Local operation/display: With display (lid with glass pane)</li> <li>- Mounting bracket: Steel, zinc-plated</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SIEMENS      | Châu Âu/OECD | 2        | cái    |         |
| 179 | Encoder              | FSI 9851880362<br>Part no: 1178411-01                           | <ul style="list-style-type: none"> <li>Encoder configuration: <ul style="list-style-type: none"> <li>- Shaft type: Ø11 mm with key nut</li> <li>- Flange type: Euro-flange (B10-type)</li> <li>- Power supply: 18-30 Vdc (powered by a PELV- or SELV-system)</li> <li>- Connecting direction: Radial</li> </ul> </li> <li>Electrical data: <ul style="list-style-type: none"> <li>- Polarity protected: Yes</li> <li>- Voltage range: 18-30 Vdc</li> </ul> </li> <li>A-Module Specification: <ul style="list-style-type: none"> <li>- Connection type: 3xM12 connectors</li> <li>- Protocol: PROFINET IO Conformance Class B (RT)</li> <li>- Supported profile: Encoder profile PNO No. 3.162 V4.2</li> <li>- Baud rate: 100 Mbit/s</li> <li>- IP Address: Assigned dynamically via DCP</li> <li>- Absolute resolution: 31 bit (19 bit singletum + 12 bit multiturn)</li> </ul> </li> <li>B-Module specification: <ul style="list-style-type: none"> <li>- Safety functions: Overspeed, end limits, acceleration, standstill</li> <li>- Connection type: 1x 5pM12 male, 2x 5pM12 female</li> </ul> </li> <li>- Failsafe relays: <ul style="list-style-type: none"> <li>+ Number of relays: 2 failsafe relays</li> <li>+ Relay type: Normally open</li> </ul> </li> <li>- Failsafe digital inputs (F-DI1 to F-DI3): <ul style="list-style-type: none"> <li>+ Number of digital inputs: 3 (F-DI1, F-DI2, F-DI3)</li> </ul> </li> </ul> | LEINE&LINDE  | Châu Âu/OECD | 1        | cái    |         |

| STT | Tên vật tư/mô tả                | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nhà Sản xuất  | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|---------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------|--------|---------|
| 180 | Encoder                         | 8.5020.D55H.10<br>24        | <ul style="list-style-type: none"> <li>- Type: Incremental encoder</li> <li>- Flange: with stator coupling, IP65 ø 63 mm</li> <li>- Through hollow shaft: ø 12 mm</li> <li>- Output circuit (with inverted signal) / supply voltage: push-pull / 10 ... 30 V DC</li> <li>- Type of connection – connector with cable: tangential cable, 0.3 m [0.98] PVC, incl. M12 connector, 8-pin for central fastening</li> <li>- Pulse rate: 1024</li> </ul>                                                                                                                                                                                                                                                                                      | KUBLER        | Châu Âu/OECD       | 1        | cái    |         |
| 181 | Limit Switch                    | XCRT115                     | <ul style="list-style-type: none"> <li>- Product or component type: Limit switch</li> <li>- Body type: Fixed</li> <li>- Head type: Rotary head</li> <li>- Material: Metal</li> <li>- Fixing mode: By the body</li> <li>- Movement of operating head: Rotary</li> <li>- Type of operator: Zinc plated steel spring return roller (with lever)</li> <li>- Type of approach: 2 directions lateral approach</li> <li>- Number of poles: 2</li> <li>- Contacts operation: Snap action</li> <li>- Switch actuation: By conveyor belt</li> <li>- Number of steps: 2</li> <li>- Minimum torque for tripping: 1 N.m</li> <li>- Mechanical durability: 300000 cycles</li> <li>- IP degree of protection: IP65 conforming to IEC 60529</li> </ul> | TELEMECANIQUE | Châu Âu/OECD/ASEAN | 2        | cái    |         |
| 182 | Emergency Stop Push Button      | 3SU1801-0NB00-2AC2          | <ul style="list-style-type: none"> <li>- Enclosure for command devices, 22 mm, round, Enclosure material plastic, Enclosure top part yellow, with protective collar, 1 control point plastic, A=EMERGENCY STOP mushroom pushbutton red, 40 mm, rotate-to-unlatch, 1 NC, 1 NC, screw terminal, floor mounting, 1xM20 each on top and bottom</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                  | SIEMENS       | Châu Âu/OECD       | 3        | cái    |         |
| 183 | Misalignment (Off-Track) Switch | ET-4/1-L32                  | <ul style="list-style-type: none"> <li>- Type: Misalignment (Off-Track) Switch</li> <li>- Conveyor belt misalignment switch ø32mm roller</li> <li>- Conforms to standard : EN 60947</li> <li>- Actuation angle : 25°</li> <li>- Max. displacement angle : 55°</li> <li>- Switching elements: 1 NO and 1 NC</li> <li>- Contact ratings : 240VAC 6 A or 24VDC 5 mA up to 10A</li> <li>- Protection: IP 67 (according to EN 60529)</li> <li>- Housing material : Die-cast aluminium</li> <li>- Fixing : 4 holes for M5-screws</li> </ul>                                                                                                                                                                                                  | DUK           | Châu Âu/OECD       | 2        | cái    |         |

| STT | Tên vật tư/mô tả        | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nhà Sản xuất     | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|-------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------|----------|--------|---------|
| 184 | Positioner              | YT-3300-RDN5101S            | <ul style="list-style-type: none"> <li>- Motion Type: Rotary</li> <li>- Acting type: Double</li> <li>- Explosion Proof: Non-Explosion</li> <li>- Lever Type: Namur</li> <li>- Conduit - Air Connection Type: G 1/2 - Rc 1/4</li> <li>- Communication: None</li> <li>- Option: Position Transmitter</li> <li>- Operating Temp.: -30 ~ 85 °C (-22 ~ 185 °F, except EAC)</li> <li>- Input signal: 4-20mA</li> <li>- Ingress protection: IP66</li> <li>- Supply pressure: 1.4 - 7 Bar</li> <li>- Process pressure 0 to 145 psi</li> <li>- Version: Basic version</li> <li>- Application range: pH = 0 to 14, T = 32 to 275°F (0 to 135°C), 3 diaphragms, sterilizable</li> <li>- Shaft length: 120 mm / 4.72"</li> <li>- Electrolyte supply: KCl hose connection, CPY7</li> <li>- Approval: Non-hazardous area</li> </ul> | ROTORK           | OECD               | 1        | cái    |         |
| 185 | PH Sensor               | CPS41D-7BC2B1               | <ul style="list-style-type: none"> <li>- DN size: 15 mm</li> <li>- Connection Inlet/Outlet: conn. set, ext. thread</li> <li>- Outlet pressure: 1.5 ... 6 bar</li> <li>- Flow capacity Kvs: 2.4</li> <li>- Body material: stainless steel</li> <li>- Spring bonnet material: synthetic material</li> <li>- Filter mesh: 0.16 mm</li> <li>- Filter bowl: clear</li> <li>- Port diameter: 1/2 inch</li> <li>- Maximum inlet pressure: 16 bar</li> <li>- Preset Outlet Pressure: 3 bar</li> </ul>                                                                                                                                                                                                                                                                                                                         | ENDRESS + HAUSER | Châu Âu/OECD       | 4        | cái    |         |
| 186 | Pressure reducer valve  | D06FI-1/2A                  | <ul style="list-style-type: none"> <li>- DN size: 15 mm</li> <li>- Connection Inlet/Outlet: conn. set, ext. thread</li> <li>- Outlet pressure: 1.5 ... 6 bar</li> <li>- Flow capacity Kvs: 2.4</li> <li>- Body material: stainless steel</li> <li>- Spring bonnet material: synthetic material</li> <li>- Filter mesh: 0.16 mm</li> <li>- Filter bowl: clear</li> <li>- Port diameter: 1/2 inch</li> <li>- Maximum inlet pressure: 16 bar</li> <li>- Preset Outlet Pressure: 3 bar</li> </ul>                                                                                                                                                                                                                                                                                                                         | Honeywell        | Châu Âu/OECD/ASEAN | 1        | cái    |         |
| 187 | Solenoid valve          | MK 15 NC                    | <ul style="list-style-type: none"> <li>- Orifice: DN 15</li> <li>- Function: valve normally closed symbol NC</li> <li>- ports: G1/2</li> <li>- Nominal Voltage: 230V AC</li> <li>- Pressure Range: 0-16 Bar</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Coax             | Châu Âu/OECD/ASEAN | 1        | cái    |         |
| 188 | Temperature Transmitter | T32.1S.000-Z                | <ul style="list-style-type: none"> <li>- Analogue output: 4 ... 20 mA</li> <li>- Power supply: 10.5 ... 42 V</li> <li>- Input: PT100, 3 Wire</li> </ul> <p>Phải có khả năng lắp đặt tương thích với Temperature Transmitter T32.1S.000-Z (S/N: 1108861) của hãng Wika mà nhà máy điện Sông Hậu 1 đang sử dụng</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Wika             | Châu Âu/OECD       | 1        | cái    |         |

| STT | Tên vật tư/mô tả                                  | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|---------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 189 | Proximity Switch                                  | PRT30-15DO                  | Specifications<br>- Sensing distance: 15mm ±10%<br>- Hysteresis: Max 10% of Sensing distance<br>- Setting distance: 0 ~ 10.5mm<br>- Power supply: 24 VDC<br>- Leakage current: Max 1.5mA<br>- Response frequency: 100Hz<br>- Residual voltage: Max 7V<br>- Insulation Resistance: Min 50MΩ                                                                                                                                                                    | AUTONICS     | Châu Âu/OECD/ASEAN | 4        | cái    |         |
| 190 | Proximity Sensor                                  | PRDCML18-14DP               | Sensing distance: 14mm<br>Hysteresis Max.: 10% of sensing distance<br>Standard sensing target: 40×40×1mm(Iron)<br>Setting distance: 0 to 9.8mm<br>Power supply: (Operating voltage) 12-24VDC(10-30VDC)<br>Response frequency: 200Hz<br>Control output: Max. 200mA<br>Insulation resistance Min: 50 MΩ (at 500VDC megger)<br>Protection: IP67(IEC standards)                                                                                                   | Autonics     | Châu Âu/OECD       | 2        | cái    |         |
| 191 | Sodium Electrode                                  | AW501 030                   | Part No: AW501 030                                                                                                                                                                                                                                                                                                                                                                                                                                            | ABB          | Châu Âu/OECD       | 1        | cái    |         |
| 192 | Reference electrode for non reservoir fed systems | AW501 035                   | Part No: AW501 035                                                                                                                                                                                                                                                                                                                                                                                                                                            | ABB          | Châu Âu/OECD       | 1        | cái    |         |
| 193 | Reference electrode for reservoir-fed systems     | AW501 036                   | Part No: AW501 036                                                                                                                                                                                                                                                                                                                                                                                                                                            | ABB          | Châu Âu/OECD       | 2        | cái    |         |
| 194 | Sensor (for Boiler Tube Leak Detection system)    | MTN/P100                    | - Standard Charge Sensitivity: 20 pC/g (nominal)<br>- Capacitance: 450 pF (nominal)<br>- Transverse Sensitivity: Less than 5%<br>- Mounted Base Resonance: 30 kHz (nominal)<br>- Temperature Range: -55 to 250 °C<br>- Amplitude Linearity: ±1%<br>- Acceleration Range: ±800 g<br>- Case Material: Stainless steel<br>- Connector: Microdot<br>- Mounting: 10 - 32 UNF female<br>- Sealing: IP65<br>- Torque: 3 Nm<br>- Charge Amplifier Required: MTN/CA003 | MONITRAN     | Châu Âu/OECD       | 5        | cái    |         |

| STT | Tên vật tư/mô tả                                                 | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 195 | High Temperature Cable (for Boiler Tube Leak Detection system)   | HTC - 10M                   | <ul style="list-style-type: none"> <li>- AE Sensor → Pre-Amplifier</li> <li>- Standard : RG316/U-FEP</li> <li>- Temperature Range : -55 to 200°C</li> <li>- Impedance : 50Ω</li> <li>- Capacitance : 95pF/m</li> <li>- Length : 10m</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ORBIS        | Châu Âu/OECD       | 5        | cái    |         |
| 196 | Boiler Tube Leak Detection - Preamplifier                        | BTPR-18                     | <ul style="list-style-type: none"> <li>- Frequency: 0.1 ~ 35kHz</li> <li>- Input Impedance: 100MΩ</li> <li>- Operation Voltage: 12VDC</li> <li>- Connection: BNC Type</li> <li>- Case Material: Aluminium</li> <li>- Operation Temperature -10~80°C</li> <li>- Amplification : 10 times fixed type</li> <li>- Output Range : -700mVp ~ 700mVp</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ORBIS        | Châu Âu/OECD       | 4        | cái    |         |
| 197 | Intelligent Plug-In Photoelectric Smoke Detectors with FlashScan | FSP - 951                   | <ul style="list-style-type: none"> <li>- Operating Voltage Range: 15 to 32 VDC</li> <li>- Operating Current @ 24 VDC: 200 uA (one communication every 5 seconds with green LED blink on communication)</li> <li>- Operating Humidity Range: 10% to 93% Relative Humidity, Non-condensing</li> <li>- Operating Temperature Range: 32°F to 122°F (0°C to 50°C)</li> <li>- Air Velocity: 0 to 4000 ft./min. (0 to 1219.2 m/min.)</li> <li>- Height: 2.0" (51 mm) installed in B300-6 Base</li> <li>- Diameter: 6.2" (156 mm) installed in B300-6 Base; 4.1" (104 mm) installed in B501 Base</li> </ul>                                                                                                                                                                                                                                | NOTIFIER     | Châu Âu/OECD/ASEAN | 100      | cái    |         |
| 198 | Intelligent Plug-In Temperature Sensors                          | FST - 951                   | <ul style="list-style-type: none"> <li>- Operating Voltage Range: 15 to 32 Volts DC Peak</li> <li>- Operating Current @ 24 VDC: 200 uA (one communication every 5 seconds with green LED blink on communication)</li> <li>- Operating Humidity Range: 10% to 93% Relative Humidity, Non-condensing</li> <li>- Installation Temperature: Set for fixed-temperature or rate-of-rise (ROR): -4°F to 100°F (-20°C to 38°C)</li> <li>- Set for high-heat: -4°F to 150°F (-20°C to 66°C)</li> <li>- Fixed Temperature Rating: 135°F (57°C)</li> <li>- High Heat Temperature Rating: 190°F (88°C)</li> <li>- Rate-of Rise Detection: Responds to greater than 15°F/minute or 135°F (8.3°C/minute or 57°C)</li> <li>- Height: 2.0" (51 mm) installed in B300-6 Base</li> <li>- Diameter: 6.2" (156 mm) installed in B300-6 Base</li> </ul> | NOTIFIER     | Châu Âu/OECD/ASEAN | 100      | cái    |         |

| STT | Tên vật tư/mô tả          | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|---------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 199 | Supervised Control Module | FCM-1                       | <ul style="list-style-type: none"> <li>- Normal Operating Voltage: 15 to 32 VDC</li> <li>- Maximum Current Draw: 6.5 mA (LED on)</li> <li>- Average Operating Current: 375µA (LED flashing - in group poll mode) 350µA (LED flashing - in direct poll mode); 485µA Max. (LED flashing, NAC shorted)</li> <li>- Maximum NAC Line Loss: 4 VDC</li> <li>- External Supply Voltage (between Terminals T10 and T11)</li> <li>+Maximum (NAC): Regulated 24 VDC</li> <li>+Maximum (Speakers): 70.7 V RMS, 50 W</li> <li>- Drain on External Supply: 1.7 mA Maximum using 24 VDC supply; 2.2 mA Maximum using 80 VRMS supply</li> <li>- Max NAC Current Ratings: For class B wiring system, the current rating is 3A; For class A wiring system, the current rating is 2A</li> <li>Temperature Range: 32°F to 120°F (0°C to 49°C)</li> <li>- Humidity: 10% to 93% Non-condensing</li> <li>- Dimensions: 4.675" H x 4.275" W x 1.4" D (Mounts to a 4" square by 21/8" deep box.)</li> <li>- Accessories: SMB500 Electrical Box; CB500 Barrier</li> </ul> | NOTIFIER     | Châu Âu/OECD/ASEAN | 50       | Bộ     |         |
| 200 | Addressable Call Point    | FSM500K/T(E)                | <ul style="list-style-type: none"> <li>- Operating Voltage: 15-32VDC</li> <li>- Current Ratings: <ul style="list-style-type: none"> <li>- Standby: 470µA @ 24VDC</li> <li>- Alarm: 2.3mA @ 24VDC (LED Rating Max. 30mA)</li> </ul> </li> <li>- Seal Material: NBR</li> <li>- Input Voltage:: 24VDC</li> <li>- Ingress Protection Rating: NEMA 4, 4X</li> <li>- Port Type: NPT</li> <li>- Coil Type: 1/2" NPT Conduit w/ 18" Leads</li> <li>- Main Flow Coefficient: 4</li> <li>- Function: Normally Closed</li> <li>- Body Material: Brass</li> <li>- Actuation Type: Internally Piloted</li> <li>- Orifice Size: 5/8</li> <li>- Valve Type: 2 Way</li> <li>- Maximum Pressure Differential: 175.0</li> <li>- Port Size: 1/2</li> </ul>                                                                                                                                                                                                                                                                                                         | NOTIFIER     | Châu Âu/OECD/ASEAN | 50       | cái    |         |
| 201 | Solenoid valve            | 73218BN4UNL<br>VN0C111C2    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Parker       | Châu Âu/OECD/ASEAN | 50       | cái    |         |

| STT | Tên vật tư/mô tả | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 202 | Pressure sensor  | Model A-10                  | Wetted parts: 316L<br>Non-linearity $\leq \pm 0.5\%$ of span<br>Measuring range: 0...300 psi (gauge pressure)<br>Process connection: 1/4 NPT<br>Output signal: 1 ... 5 V, 3-wire<br>Power supply: 8...30 V DC<br>Pin assignment: Angular connector DIN 175301-803A<br>- Nominal Voltage: 12 Volt<br>- Nominal Capacity:<br>33.5 W @ 15 min-rate to 1.6 Vpc at 25 °C<br>9.0 Ah 20 hours rate to 1.75 Vpc at 25 °C<br>- Float charging voltage: 13.50 - 13.80 V/bloc at 25 °C<br>- Boost charge voltage: 14.40 - 15.00 V/bloc at 25 °C<br>- Float voltage compensation: -18mV/°C<br>- Maximum charging current: 1.25 A<br>- Case: ABS with HB flammability rate (according UL 94)<br>- Internal resistance: 23.6 mΩ in full charged condition<br>- Operative temperature range: -20 °C to 50 °C | Wika         | Châu Âu/OECD       | 2        | cái    |         |
| 203 | Battery          | 12FGHL34                    | - Voltage: 12.00 V<br>- Performance: 55Ah C20 1.75Vcell 25°C<br>- Float Voltage: 2.27V/cell at 20°C<br>- Connection torque: 7 - 9 Nm<br>- Max Charge Current: 13.75 A<br>- Nominal Operating Voltage: 15-32 VDC<br>- Average Operating Current: 375µA maximum (group poll); 350 µA (direct poll); 600 µA Max. (Communicating, IDC Shorted)<br>- EOL resistance: 47K Ohms<br>- Maximum SLC Wiring Resistance: 40 Ohms<br>- Maximum IDC Wiring Resistance: 1,500 Ohms<br>- Maximum IDC Voltage: 11 Volts<br>- Maximum IDC Current: 450µA<br>- Temperature Range: 32°F to 120°F (0°C to 49°C)<br>- Humidity: 10% to 93% Non-condensing<br>- Dimensions: 1.3" H x 2.75" W x 0.5" D<br>- Wire Length: 6" minimum                                                                                   | FIAMM        | Châu Âu/OECD/ASEAN | 6        | cái    |         |
| 204 | Battery          | 12SP55                      | - Voltage: 12.00 V<br>- Performance: 55Ah C20 1.75Vcell 25°C<br>- Float Voltage: 2.27V/cell at 20°C<br>- Connection torque: 7 - 9 Nm<br>- Max Charge Current: 13.75 A<br>- Nominal Operating Voltage: 15-32 VDC<br>- Average Operating Current: 375µA maximum (group poll); 350 µA (direct poll); 600 µA Max. (Communicating, IDC Shorted)<br>- EOL resistance: 47K Ohms<br>- Maximum SLC Wiring Resistance: 40 Ohms<br>- Maximum IDC Wiring Resistance: 1,500 Ohms<br>- Maximum IDC Voltage: 11 Volts<br>- Maximum IDC Current: 450µA<br>- Temperature Range: 32°F to 120°F (0°C to 49°C)<br>- Humidity: 10% to 93% Non-condensing<br>- Dimensions: 1.3" H x 2.75" W x 0.5" D<br>- Wire Length: 6" minimum                                                                                   | FIAMM        | Châu Âu/OECD/ASEAN | 8        | cái    |         |
| 205 | Monitor Module   | FMM-101                     | - Nominal Operating Voltage: 15-32 VDC<br>- Average Operating Current: 375µA maximum (group poll); 350 µA (direct poll); 600 µA Max. (Communicating, IDC Shorted)<br>- EOL resistance: 47K Ohms<br>- Maximum SLC Wiring Resistance: 40 Ohms<br>- Maximum IDC Wiring Resistance: 1,500 Ohms<br>- Maximum IDC Voltage: 11 Volts<br>- Maximum IDC Current: 450µA<br>- Temperature Range: 32°F to 120°F (0°C to 49°C)<br>- Humidity: 10% to 93% Non-condensing<br>- Dimensions: 1.3" H x 2.75" W x 0.5" D<br>- Wire Length: 6" minimum                                                                                                                                                                                                                                                            | NOTIFIER     | Châu Âu/OECD/ASEAN | 60       | cái    |         |

| STT | Tên vật tư/mô tả         | Order information (Part N0) | Thông số kỹ thuật                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nhà Sản xuất | Xuất xứ            | Số lượng | Đơn vị | Ghi chú |
|-----|--------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|----------|--------|---------|
| 206 | Fault Isolator Module    | ISO-X                       | <ul style="list-style-type: none"> <li>- Normal Operating Voltage: 15-32 VDC</li> <li>- Stand-By Current: 450µA (not isolating, relay closed)</li> <li>- Temperature Range: 32°F to 120°F (0°C to 49°C)</li> <li>- Humidity: 10% to 93% Non-condensing</li> <li>- Dimensions: 4 1/2" H x 4" W x 1/4" D (Mounts to a 4" square by 2 1/8" deep box)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | NOTIFIER     | Châu Âu/OECD/ASEAN | 40       | cái    |         |
| 207 | Releasing Control Module | FCM-1-REL                   | <p>Specifications SLC</p> <ul style="list-style-type: none"> <li>- Normal Operating Voltage: 15 to 32 VDC Nominal</li> <li>- Average Operating Current: 700µA (LED flashing)</li> <li>- Maximum Activation Current: 9.0 mA (red LED on) External Supply</li> <li>- Normal Operating Voltage: 24 VDC Nominal</li> <li>- Maximum Line Loss: 2.3 VDC (total allowable loss from power supply to module and from module to solenoid)</li> <li>- Minimum Operating Voltage to Activate Solenoid: 18 VDC (at solenoid)</li> <li>- Standby Current: 6.4 mA</li> <li>- Activation Current: 10 mA</li> <li>- Maximum Activation Current: 2 A</li> </ul> <p>Solenoid</p> <ul style="list-style-type: none"> <li>- Supervisory Loop Voltage: 3.3 V</li> <li>- Supervisory Loop Current (Normal): 30 mA</li> <li>- Maximum Activation Current: 2 A</li> <li>- Temperature Range: 14°F to 140°F (-10°C to 60°C)</li> <li>- Humidity: 10% to 95% RH Non-condensing</li> <li>- Dimensions: 4 1/2" H x 4" W x 1 1/4" D; (106 mm H x 108 mm W x 31 mm D)</li> </ul> | NOTIFIER     | Châu Âu/OECD/ASEAN | 10       | cái    |         |

\*Yêu cầu khác:

+ Tất cả các hàng hóa do nhà thầu cung cấp phải đảm bảo mới 100%, chưa qua sử dụng, sản xuất từ năm 2024 trở về sau và có nguồn gốc xuất xứ rõ ràng, chính hãng. Các hàng hóa nêu trên là vật tư thay thế/spare part cho các thiết bị hiện hữu đang sử dụng tại Nhà máy Nhiệt điện Sông Hậu 1. Do đó, để đảm bảo tương thích, đồng bộ với thiết bị/hệ thống hiện hữu, đang sử dụng tại Nhà máy (tương thích về kích thước, khả năng lắp đặt, kết nối, điều khiển cho thiết bị/hệ thống nêu trên), VTTT phải là hàng hóa chính hãng, dùng chung loại/model, thông số kỹ thuật như yêu cầu

