

**CHI NHÁNH PHÁT ĐIỆN DẦU KHÍ
NHÀ MÁY NHIỆT ĐIỆN SÔNG HẬU 1**

**CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc**

Số: 630/NMĐSH1-KTATMT

Hậu Giang, ngày 15 tháng 04 năm 2025

V/v cung cấp báo giá “Mua sắm vật tư
thay thế phục vụ BDSC thường xuyên và bất
thường năm 2025 Phần điện”

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 phục vụ BDSC thường xuyên và bất thường năm 2025 Phần điện”. NMNĐ Sông Hậu 1 đề nghị Quý Công ty quan tâm, nghiên cứu và cung cấp báo giá 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%, chưa qua sử dụng, sản xuất từ năm 2024 trở lại đây, thời gian bảo hành tối thiểu 12 tháng;
 - Hàng hóa phải có CO/CQ hoặc tài liệu có tính chất tương tự.
2. Tiến độ cung cấp: Nhà thầu đề xuất tiến độ cung cấp tốt nhất để Nhà máy xem xét.
3. Địa điểm giao hàng: NMNĐ Sông Hậu 1, Ấp Phú Xuân, Thị trấn Mái Dầm, Huyện Châu Thành, Tỉnh Hậu Giang.
4. Hiệu lực báo giá: 60 ngày kể từ ngày chào giá.
5. Thời gian gửi báo giá: trước 17h00 ngày 07/05/2025.
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.

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Nhà máy Nhiệt điện Sông Hậu 1 cảm ơn sự hợp tác của Quý Công ty./.

Nơi nhận:

- Như trên;
- GĐ NMĐSH1 (để b/c);
- Phòng: TM, KHTC;
- Lưu VT, KT-ATMT (C.T.Đ).

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



Nguyễn Văn Chính

PHỤ LỤC: DANH MỤC HÀNG HÓA

(Đính kèm công văn số 63/QĐ-NMĐSH1-KTATMT ngày 15/04/2025)

Stt	Tên vật tư	Mã hàng hóa tham khảo	Thông số kỹ thuật	Nhà Sản xuất tham khảo	Xuất xứ	Số lượng mua sắm	Đơn vị	Ghi chú
1	MAIN CONTACTOR	AF400-30-22	- Rated Insulation Voltage: acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V - Rated Operational Voltage: Main Circuit 1000 V - Rated Frequency (f): Main Circuit 50/60 Hz - Rated Impulse Withstand Voltage [Uimp]: 8kV - Rated Current: 600 A - Number of Main Contacts NO: 3 - Number of Auxiliary contact: 2NO, 2NC - Dimension: WxHxD/ 186x278x216 (mm) - Number of Poles: 3 - Product Main Type: SACE Tmax T - Rated Current (In): Main Circuit 630 A - Rated Impulse Withstand Voltage (Uimp): 8 kV - Rated Insulation Voltage (Ui): 1000 V - Rated Operational Voltage: 690 V AC - Rated Uninterrupted Current (Iu): 630 A - Release: PR221DS-LS/I - Dimension: WxHxD/ 140x205x103.5	ABB	EU/G7/OECD	1	PCS	
2	Moulded Case Circuit Breaker	T5S 630 PR221DS-LS/I	- Rated Insulation Voltage (Ui): 1000 V - Rated Operational Voltage: 690 V AC - Rated Uninterrupted Current (Iu): 630 A - Release: PR221DS-LS/I - Dimension: WxHxD/ 140x205x103.5	ABB	EU/G7/OECD	1	PCS	

3	CIRCUIT BREAKER	1SDA068070R1	- Connecting Capacity Busbar Main Circuit: 85..192 mm²- Current Type: AC/DC; - Pole: 4 - Opening Time: CB with SOR 15 ms, CB with UVR 15 ms - Rated Current (In): 250 A- - Rated Frequency (f): 50 / 60 Hz - Rated Impulse Withstand Voltage (Uimp): 8 kV - Rated Instantaneous Short-Circuit Current Setting (Ii): 2500 A - Rated Insulation Voltage (Ui): 800 V - Rated Operational Voltage: 690 V AC, 500 V DC - Rated Uninterrupted Current (Iu): 250 A - Rated Voltage (Ur): 690 V - Recommended Screw Main Circuit Driver: M8 - Release: TMD- Release Type: TM - Setting Range: 175...250 A- Short - Circuit Performance Level: N - Sub-type: XT3; Terminal Type: Bolt; Tightening Torque: 8 N·m - Dimensions (W x H x D): 140 x 150 x 70 mm Accessory: - Trip coil, trip unit (YU); Model: 3B84 + Rated Operational Voltage: 380 - 440 VAC+ Rated Frequency (f): 50 / 60 Hz- Long handle for adjustable depth rotary handle XT1...XT4:+ Model: 1SDA066583R1; Suitable For XT3N+ Suitable for Product Class: SACE Tmax XT	ABB	EU/G7/ OECD	2	PCS	
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4	Realtime Computer System for the High-Voltage Supply of Electrofilters	PROMETOS- DP/X (Rico part number: 591615)	- Supply voltage : 90...264V; 50/60Hz - Power requirement : 65W - Digital inputs : 23 inputs; 24VDC + Input 1: system on + Input 2: select digital / Profibus from control room + Input 3: oil level, hv unit + Input 4: over-pressure, hv unit + Input 5: earthing switch + Input 6: Program No, bit 2 + Input 7: program No, bit 0 + Input 8: manual, step voltage up + Input 9: input available via Profibus-DP + Input 10: wet precipitators + Input 11: disable short circuit detection; Input 12: general warning; + Input 13: system off; + Input 14: voltage cutback; + Input 15: over-temperature, thyristor	Rico-Werk Eiserlo&Emmr ich GmbH	EU/G7/ OECD	2	Set	*
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5	Measuring board for Prometos.	Rico part number 591298.	- Measuring board for Prometos , phần tử của hệ thống tủ điều khiển MBA trường ESP, do đó vật tư này cần phải tương thích với hệ thống tủ điều khiển MBA trường ESP hiện tại của nhà máy (Order NO: 591298)) - Module được sản xuất lắp đặt và cài đặt đầy đủ các chức năng và thông số hoạt động như bản vẽ thiết kế SH1-HRC-P0HDE-E-M06-DSU-0002 - REV1 - Data Sheet và Operation Manual, Installation Manual của bo mạch điều khiển. - Hỗ trợ kỹ thuật không tính phí trong quá trình lắp đặt khi có lỗi xảy ra.	Rico-Werk Elserlo & Emmrich GmbH	EU/G7/ OECD	1	PCS	*
6	Signal I/O board for Prometos	Rico part number 591326-1	- Signal I/O board for Prometos, phần tử của hệ thống tủ điều khiển MBA trường ESP, do đó vật tư này cần phải tương thích với hệ thống tủ điều khiển MBA trường ESP hiện tại của nhà máy (Order NO: 591326-1)) - Module được sản xuất lắp đặt và cài đặt đầy đủ các chức năng và thông số hoạt động như bản vẽ thiết kế SH1-HRC-P0HDE-E-M06-DSU-0002 - REV1 - Data Sheet và Operation Manual, Installation Manual của bo mạch điều khiển. - Hỗ trợ kỹ thuật không tính phí trong quá trình lắp đặt khi có lỗi xảy ra.	Rico-Werk Elserlo & Emmrich GmbH	EU/G7/ OECD	1	PCS	*

7	Signal Separation for Prometos	Type number 591296; Rico part number 591296	- Signal Separation for Prometos, phần tử của hệ thống tủ điều khiển MBA trường ESP, do đó vật tư này cần phải tương thích với hệ thống tủ điều khiển MBA trường ESP hiện tại của nhà máy (Order NO: 591296))- Module được sản xuất lắp đặt và cài đặt đầy đủ các chức năng và thông số hoạt động như bản vẽ thiết kế SH1-HRC-P0HDE-E-M06-DSU-0002 - REV1 - Data Sheet và Operation Manual, Installation Manual của bo mạch điều khiển. - Hỗ trợ kỹ thuật không tính phí trong quá trình lắp đặt khi có lỗi xảy ra.	Rico-Werk Elserlo&Emmr ich GmbH	EU/G7/ OECD	1	PCS	*
8	Impulse amplifier for Prometos	Type number 591293; Rico part number 591293.	- Impulse amplifier for Prometos, phần tử của hệ thống tủ điều khiển MBA trường ESP, do đó vật tư này cần phải tương thích với hệ thống tủ điều khiển MBA trường ESP hiện tại của Nhà máy. - Module cài đặt đầy đủ các chức năng và thông số hoạt động như bản vẽ thiết kế SH1-HRC-P0HDE-E-M06-DSU-0002 - REV1 - Data Sheet và Operation/ Installation Manual, Maintenance Manual của bo mạch điều khiển. - Hỗ trợ kỹ thuật không tính phí trong quá trình lắp đặt khi có lỗi xảy ra.	Rico-Werk Elserlo&Emmr ich GmbH	EU/G7/ OECD	1	PCS	*
9	Control transformer for Prometos 750VA	Type number V-27072-001-0010 (Rico part number 490426)	- Prim: 400-440-460-500-550V; -20V, 50/60 Hz - Sec: 2 x 230 VAC, 1 x 24 VDC - Burden: 750VA	Wagner Elktrogerate GmbH	EU/G7/ OECD	1	PCS	

10	Control transformer 1.3kVA	Rico part number STN1,3 (400/230) (221523)	- Rated input voltage: $400 \pm 5\%$ V, - Rated output voltage: 230 V - Rated power: 1,3 kVA - Connection lug: Yes for > 115 A - Connection type: Terminations, < 115 A - Degree of protection: IP00 - Duty factor: 100 % - Insulation class: B - Primary tapping: $\pm 5\%$ - Efficiency 94 % - No-load losses: 46 W - Rated frequency - min: 50 Hz - Rated frequency - max: 60 Hz - Relative short-circuit voltage 2.1 % - Short-circuit losses: 33 W - Short-time rating: 4.8 kVA - Voltage rating - max: 600 V - Dimension (L/D x H x W mm): 138 x 157 x 175 mm - Weight: 13,6 kg	Moeler Eaton Electric GmbH	EU/G7/ OECD	1	PCS	
11	Contacteur	LC1E95N5	- Contactor 3P- Utilisation category AC-1; - AC-3- Pole contact composition: 3 NO- [Ue] - rated operational voltage: Power circuit: $\leq$ 690 V AC 50/60 Hz- Control circuit voltage: 415VAC 50Hz- [Ie] rated operational current: $+ 95$ A (at $< 55^\circ\text{C}$) at ≤ 440 V AC AC-3 for power circuit - AC AC-1 for power circuit 1 NO + 1 NC - voltage: 6 kV 85 x 121 mm	Schneider	EU/G7/ OECD	1	PCS	

12	MCCB	CVS100B	Main: - Product or component type: Circuit breaker - Device application: Distribution - Poles description: 4P - Protected poles description: 3D : Earth leakage protection (Vigi add on): Without - [In] rated current: 40 A at 40 °C - Network type: AC - Utilisation category: Category A - Trip unit name: TM-D - Trip unit technology: Thermal-magnetic - Trip unit rating: 40 A at 40 °C - Protection type: Overload protection (thermal) Short-circuit protection (magnetic) Complementary: - [Uimp] rated impulse withstand voltage: 8 kV conforming to EN/IEC 60947-2 - Network frequency: 50/60 Hz	Schneider	EU/G7/ OECD	1	PCS	
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						- Breaking capacity: code B - [Ics] rated service breaking capacity: 15 kA at 440 V AC 50/60 Hz conforming to IEC 60947-2 - 25 kA at 380/415 V AC 50/60 Hz conforming to IEC 60947-2 - 40 kA at 220/240 V AC 50/60 Hz conforming to IEC 60947-2 - Neutral position: Left - Mechanical durability: 30000 cycles - Electrical durability: 12000 cycles 415 V In conforming to IEC 60947-2 - Control type: Toggle - Thermal protection adjustment range: 28...40 A - Neutral protection setting: No protection (3D) - Long time pick-up adjustment type Ir: Adjustable - Long time pick-up adjustment range: 0.7...1 x In - Long time delay adjustment type: Fixed - Instantaneous pick-up adjustment type Ii: Fixed - Instantaneous pick-up adjustment range: 500 A - Contact position indicator: Yes - Compatibility code: CVS100 - Width: 140 mm - Depth: 86 mm - Height: 161 mm - Total Electric Power: 2 kW - Electric Supply System: 400V / 2PH - Dimensions (LxWxD): 604x360x355mm - Heat Insulation: Ceramic Fiber 6mm Thk - Design Temperature: 300 °C	Sushma		2	PCS	
13	HOPPER HEATER										

14	Insulator Ring Heater	Ring Type	- Withstand Temperature: 600 °C - Degree of protection: IP65 - Power Supply : 400V, 50Hz, 2Ph, AC supply - Rated Power : 1 kW - Material : Stainless Steel - Temperature Withstand : 200°C - Dimension: Ø600 mm - Terminal pin: Ø4 x 100mm - Terminal box: 100x50x75 mm - Application : Heating of Ceramic insulator - Terminal Box -1 with IP65 protection - mounted in Reflector plate	Hamon	EU/G7/ OECD	3	PCS	
15	PROTECTION RELAY	REF620 NBFNAAAAN EA1BNN11G	- Protective Relay REF620- IED: 620 series IED (including case)- Standard: IEC- Main application: Feeder protection and control- Functional application: Example configuration- Analog inputs and outputs: 4I (10 1/5 A) + 5U + 24BI + 14BO- Optional board: Optional I/Os 8BI+ 4BO - Communication modules: Ethernet 100Base-TX and -FX (1 x RJ-45 + 2 x LC) with HSR/PRP NE No com.- Communication protocols: IEC 61850 (for Ethernet communication modules and IEDs without a communication module).- Language: English- Front panel: Large LCD with Single Line Diagram - IEC- Option 1: None- Option 2: None- Power supply: Power supply 48-250 VDC, 100-240 VAC - Reserved: Product version 2.0 FP1	ABB	EU/G7/ OECD	1	Set	*

16	Fan ventilator	MV-101	- Power supply: 1 phase, 220 V AC - Blade size: 25 cm - Frequency: 50 Hz - Current: 0,27 A - Power Input: 46 W - Revolution per minute: 1300 RPM - Pole: 4P - Air volume: 425 CFM - Air pressure: 30 pa - Weight: 2,3 kg - Dimension: 356 x 167 x ø301	MANSEUNG	EU/G7/ OECD	5	PCS	
17	Circuit breaker Masterpact	MasterPact NW25H1 (48303)	- Type of application: Circuit breaker for industrial sites with high short-circuit currents - Poles description: 4 P; - Neutral position: Right - Micrologic control units: 2.0 A + Type of protection: 2 for basic protection + Control-unit generation: Identification of the control-unit generation. “0” signifies the first generation. + Type of measurement: A for ammeter - Ie rated current: 2500 A - Ue rated operational voltage: 690 V AC 50/60 Hz - Icu (220/ 440 V, 480/690 V): 65 kA - Ics: 100% Icu; - Icw:65 kA/1s - Control type: Push-button - Mounting mode: Drawout - Icm rated short-circuit making capacity (220/ 440 V, 480/690 V): 143 kA - Ui rated insulation voltage: 1000 V - Uimp rated impulse withstand voltage: 12 kV - Power dissipation in W: 600 W - Maximum breaking time: 25 ms;	Schneider	EU/G7/ OECD	1	Set	

18	Support insulator	90049	- Maximum closing response time: 70 ms - Mounting support: Backplate, Rails; - Busbar connection: Vertical rear connection - Dimension (H x W x D mm): 439 x 556 x 395 mm - Net weight: 120 kg; - Standard: IEC 60947-3	NTP / Norway	EU/G7/ OECD	6	PCS	
19	Shaft insulator	FRP Shaft (Insulator for DE)	- Material - Ceramic with white Glaze - Dielectric Strength @ 20°C: 25kV/mm - Volume Resistivity @400°C / 200°C: 4×10^8 ohm cm/ 5×10^{11} ohm cm - Compressive strength: 500 kN @ 20°C - Operating Voltage: 125kV DC - Leakage distance Min/Nom: 590mm/600mm - Approximate Weight: 50kg - Dimension: + Top: $\varnothing 300 \pm 7 / \varnothing 350 \pm 8$ mm + Bottom: $\varnothing 480 \pm 9 / \varnothing 530 \pm 10$ mm + Height: 600 ± 10 mm - Material: Ceramic with white Glaze - Mechanical Failing load torsion - 2kNm - Leakage Current (200°C): max 0.1 mA - Dry frequency withstand voltage: 130kV rms - Maximum Service Temperature - 450°C - Operating Voltage - 125kV DC - Dimension: + Diameter: $\varnothing 75 / \varnothing 175$ mm + Length: 510 mm - Accessory: + Clutch Sleeve - Malleable cast iron (Hot dip galvanized 85 μm) + Pin - Stainless steel – $\varnothing 22 \times 144$ mm + Nut M20 – Stainless steel – $\varnothing 22 \times 12$ mm.	NTP / Norway	EU/G7/ OECD	4	PCS	

20	Wirewound resistor	D25K1R0	- Resistance: 1 Ohm - Resistance tolerance: 10% - Power rating: 25 W - Voltage rating: 625 V - Standard terminal: 40 - Dimensions (inches/ mm): + Diameter: 0.562/ 14,3 + Length: 2,0/ 50,8	OHMITE	EU/G7/ OECD	30	PCS	
21	AUX.RELAY	MY4N	- Miniature Power Relay - 8 Pin - Coil rated voltage: 220/240VAC - Coil rated current: 4,8/5,3mA at 50Hz - Coil rated current: 4,2/4,6mA at 60Hz - Power consumption: 1,2VA - Contact rated load: 3A 250VAC ; 3A 30VDC - Coil max switching voltage: 250VAC/125VDC - Coil max switching voltage: 5A - Operate time: 20ms max - Release time: 20ms max - Max. operating frequency mechanical: 18000 operations/hr - Max. operating frequency electrical: 1800 operations/hr - Number of NC,NO contacts: 4 - Ambient temperature, humidity: -25°C ~ 55°C / 5% ~ 85% RH - Dimension: WxHxD/ 21,5x28x36 mm	OMRON	EU/G7/ OECD	1	PCS	

22	Air Circuit Breaker	1SDA055912R1 EAN: 8015644572525	ACB E2N 4P PR121/P-LI 1600A - Dimensions + Product Net Width: 414 mm + Product Net Height: 461 mm + Product Net Depth: 396.5 mm + Product Net Weight: 61 kg - Additional Information: + Electrical Durability: 12000 cycle, 30 cycles per hour + Mechanical Durability: 25000 cycle, 60 cycles per hour + Number of Poles: 4 + Power Loss: at Rated Operating Conditions per Pole 215 W + Product Main Type: SACE Emax + Product Name: Automatic Circuit Breaker + Product Type: CBMP+ Rated Current (In):	ABB	EU/G7/ OECD	0	Set	
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					1600 A + Rated Impulse Withstand Voltage (Uimp): 12 kV + Rated Insulation Voltage (Ui): 1000 V + Rated Operational Current (Ie): 1600 A + Rated Operational Voltage: 690 V AC - Rated Service Short - Circuit Breaking Capacity (Ics): + (220 V AC) 65 Ka + (400 V AC) 65 kA + (415 V AC) 65 kA + (690 V AC) 55 kA - Rated Short-time Withstand Current (Icw): + for 1 s 65 kA+ for 3 s 65 kA - Circuit Breaking Capacity (Icu): + (220 V AC) 65 kA+ (400 V AC) 65 kA + (690 V AC) 55 kA - Rated Uninterrupted Current (Iu): 1600 A - Rated Voltage (Ur): 690 V - Release Type: EL - Standards: IEC 60947 - Sub-type: E2 - Terminal Connection Type: Withdrawable Circuit-Breakers- Version: W - ETIM 4: EC000228 - Power circuit-breaker for trafo/generator/installation prot.- ETIM 5: EC000228 - Power circuit-breaker for trafo/generator/installation prot. - Object Classification Code: Q - UNSPSC: 39120000
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23	PROTECTION RELAY	NBFNAAAAN EA1BNN1XF	REF620 1) Product Series: 620 series (Includes case) 2) Standard: IEC 3) Main Appl: Feeder protection and control 4) Configuration: Example configuration 5-6) Analog Inputs: 3 CT + Ground CT + 5 VT + Reclosing 7-8) Binary I/O: Optional I/Os 8BI + 4BO 9-10) Communication Ports: + Communication, serial: None + Communication, ethernet: Ethernet 100 Base FX (2xLC, 1xRJ45) 11) Protocols I: IEC61850 12) Language: English (IEC) and English (ANSI) 13) Front Panel: Large LCD with Single Line Diagram - IEC 14) Option 1: None 15) Option 2: None 16) Power Supply: 48-250 VDC; 100-240 VAC 17) Product version: 2.0	ABB	EU/G7/ OECD	1	Set	*
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24	EARTH FAULT RELAY	3UG4825- 1CA40	- Number of poles: 3P - LCD display - Control supply voltage at DC: 24 VDC - Operating frequency rated: 16... 400Hz - Insulation voltage: 300 VAC - Thermal current of the switching element with contacts maximum: 5A - Impulse voltage resistance rated value: 6kV - Continuous current of the DIAZED fuse link of the output relay: 4A - Product function: residual current display; error memory; overcurrent detection 1 phase; adjustable open/closed-circuit current principle; external reset - Measuring circuit: measurable current (10mA ... 43A); measurable line frequency (16... 400Hz); adjustable operating delay time (0... 999.9s); buffering time in the event of power failure minimum (10 ms); accuracy of digital display (+/-1 digit) - Relative metering precision: 5% - Protocol is supported IO-Link protocol: yes - Number of CO contacts for auxiliary contacts: 2 - Number of CO contacts for delayed switching: 2 - Dimensions: W x H x D/22,5 x 102 x 91 mm	SIEMENS	EU/G7/ OECD	1	PCS	
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25	Automatic spring cable reels	SR30 2SR 18GB050 182534 + AB26 E0	- Drum reel type: SR30 - Spring Motors: + Spring motor type: 2SR+ No. of springs: 02+ Arrangement: Series+ Type of Spring: Reinforced - Slip Ring Assemblies: + Type: 18GB050 + No. of poles: 18 poles + Earth pole: have+ Rate Current (A): 25 + Operating voltage Max (V): 690 AC / 600 DC + Rotation speed max (rpm): 100 + Diameter (mm): 52 + Rings pitch 'P' (mm): 10 + Frequency: 50/ 60 Hz - Cable: + Number cores: 18 cores + Cross section of conductors: 2,5 mm² + Length of cable: 34 m - Option: + Mounting Flange: adapter flanges (AB26) - Environment: Standard Environment.	Conductix-wampfler	EU/G7/OECD	1	Set	
26	RELAY PROTECTION	SEL - 2664S01XX83	- MAJOR FEATURES AND BENEFITS: PROTECTION, METERING, MONITORING, CONTROL, COMMUNICATIONS. - PROTECT FUNCTION: 64S, NGR, 59N, 59NRMS, 64F - SUPPLY RANGE: 125-250VDC, 120-240VAC - VA RATING: 120VA/120W - INTERNAL FUSE: T3.15A H 250V - RATED IMPULSE WITHSTAND: 5kV - INSULATION VOLTAGE: 300V - CONTACT OUTPUT: + OPERATIONAL VOLTAGE: 240V; + OPERATIONAL CURRENT: 3A @ 120V,	SEL	EU/G7/OECD	1	PCS	*

28	SUBSTATION AUTOMATION UNIT	SA330	- Operating Temperature: 0°C to 70°C. - Size/Dimensions: 184mm x 75mm x 50mm - Accuracy and power quality standard: IEC - FREQUENCY: 50Hz - MEASUREMENT CURRENT INPUTS: 5 Ampere - PROTECTION CURRENT INPUTS (SA330 ONLY): 150 A - POWER SUPPLY MAIN: + AC: 85 -265 VAC, 30VA + DC: 88 - 290 VDC, 30W - POWER SUPPLY BACKUP: + AC: 85 -265 VAC, 30VA + DC: 88 - 290 VDC, 30W - MODEM: modem - INFRA - RED PORT: IRIG-B - COMMUNICATION SATNDARD: IEC61850 (SISCO) - OPTIONAL PLUG-IN MODULES (Maximum 5 modules per instrument): + DIGITAL INPUTS (01 module): DI 16 - DRY CONTACTS + RELAY OUTPUTS (01 module): 8 Relays + 4 ANALOG INPUT/4 ANALOG OUTPUT MODULE (03 module): 4-20mA (4-12-20) - Dimension: + Height 284.00 mm + Width 255.24 mm + Depth 185.00 mm	SATEC	EU/G7/ OECD	2	Set	
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29	Standard Recovery DIODES	70HFR120	- Maximum average forward current at case temperature: 70A - Maximum RMS forward current: 110A - Low level value of threshold voltage: 0.79V - High level value of threshold voltage: 1.0V - Low level value of forward slope resistance: 2.33 mΩ - High level value of forward slope resistance: 1.53 mΩ - Maximum forward voltage drop: 1.35V - Maximum junction and storage temperature range: -65 to 180°C - Approximate weight: 17g - Dimension: ø 14,6 mm	VISHAY	EU/G7/ OECD	8	Set	
30	AC VOLTAGE TRANSDUCER	DT-3VA1AH	- Connection: 3 in 1 packaging (3 ø)- Input: 0 - 150V AC (110 V AC)- Output: 04 - 20 mA DC- Sensing type: Average Sensing - Aux. Power: 220V DC - Accuracy (at 25°C): ± 0,2% - Mounting: Wall or DIN rail (35mm)	DAEJOO	EU/G7/ OECD	2	PCS	
31	AC CURRENT TRANSDUCER	DT-3AB1AH	- Connection: 3 in 1 packaging (3 ø) - Input: 01 A (0 - 01A AC) - Output: 04 - 20 mA DC - Sensing type: Average Sensing - Aux. Power: 220V DC - Accuracy (at 25°C): ± 0,2% - Mounting: Wall or DIN rail (35mm)	DAEJOO	EU/G7/ OECD	2	PCS	

32	WATT TRANSDUCER	DT-33WS1H	- Connection: 3 phase 3 Wire - Input: + PT: 110 V + CT: 01 A - Output: 04 - 20 mA DC - Aux. Power: 220V DC - Accuracy (at 25°C): $\pm 0,2\%$ - Mounting: Wall or DIN rail (35mm) - Weight: Approx. 920g - Dimension (WxHxD): 150 x 75 x 112 mm	DAEJOO	EU/G7/ OECD	2	PCS	
33	VAR TRANSDUCER	DT-33RS1H	- Connection: 3 phase 3 Wire - Input: + PT: 110 V + CT: 01 A - Output: 04 /12/ 20 mA DC - Aux. Power: 220V DC - Accuracy (at 25°C): $\pm 0,2\%$ - Mounting: Wall or DIN rail (35mm) - Weight: Approx. 920g - Dimension (WxHxD): 150 x 75 x 112 mm	DAEJOO	EU/G7/ OECD	2	PCS	
34	Capacitive voltage detector	DVD - 12N	- Rate voltage: 12 kV - P.F Withstand Voltage (for 60s): 28 kV - Rate lightning impulse withstand voltage: 75 kV - Capacitance: $20 \pm 10\%$ - Voltage of partial discharge (detecting sensitivity in 10 pC): $< 12 \text{ kV}$ - Cantilever (for 60 sec): 400 (3920) kgf (N) - Creepage distance: 220 mm - Height: 130 mm, Diameter: 90 mm - Indicator: + DVD 6-30N + Dimension: 124 x 40 x 33 mm	DONGWOO	EU/G7/ OECD	8	Set	

35	TIMER	YSLT - F00 11	- Type: LSI timer - Using method: Free - Rate voltage: + AC: 100V - 240V + DC: 100V - 240V - Shape dimension: 39 x 49,5 mm - Contact form: 01 C	Yongsung	EU/G7/ OECD	2	PCS	
36	PROTECTION RELAY	RET615: HBTBBABANE A1ANN11G	FUNCTION: F87N, METERING... 1) Product Series: Complete RET615 (Includes case) 2) Standard: IEC 3) Main Appl: Transformer protection and control 4) Configuration: Transformer differential with low imp, restricted E/F on LV side 5-6) Analog Inputs: 7I (10 1/5A) 7-8) Binary I/O: 8BI + 10BO 9-10) Communication Ports: + Communication, serial: No serial communication + Communication, ethernet: Ethernet 100 Base FX (2xLC, 1xRJ45) with HSR/PRP 11) Protocols I: IEC 61850 12) Language: English 13) Front Panel: Small LCD 14) Option 1: No optional software 15) Option 2: No option 16) Power Supply: 48-250 VDC; 100-240 VAC 17) Product version: 5.0 FP1	ABB	EU/G7/ OECD	1	Set	*

37	AC CURRENT TRANSDUCER	DT-3AB1AB	- Connection: 3 in 1 packaging (3 ø) - Input: 01 A (0 - 1A AC) - Output: 04 - 20 mA DC - Sensing type: Average Sensing - Aux. Power: 115/ 230V AC - Accuracy (at 25°C): ± 0,2% - Mounting: Wall or DIN rail (35mm)	DAEJOO	EU/G7/ OECD	2	PCS	
38	AC VOLTAGE TRANSDUCER	DT-3VB1AB	- Connection: 3 in 1 packaging (3 ø) - Input: 0 - 259V AC (190 V AC) - Output: 04 - 20 mA DC - Sensing type: Average Sensing - Aux. Power: 115/ 230V AC - Accuracy (at 25°C): ± 0,2% - Mounting: Wall or DIN rail (35mm)	DAEJOO	EU/G7/ OECD	2	PCS	
39	DIODE MODULE	MDA55A- 1600V	- IF (Mean forward current): Max 55 A - IF (RMS forward current): Max 86 A - VRRM (repetitive peak reverse voltage): Min: 600 V, Max: 1600 V - IRRM (repetitive peak current): Max 8 mA - ISFM (surge forward current): 1,3 kA - VFO (Threshold voltage): 0,8 V - rF (Forward stop resistance): 3,47 mΩ - VFM (Peak forward voltage): 1,45 V (Isolation voltage): Min 2500 V - Terminal connection torque (M5): 4 N.m - Mounting torque (M6): 6 N.m - temperature): -40 °C - 125 °C 115 g - Dimension: 20 x 92 x 35,5 mm	Liujing / Trung Quốc	EU/G7/ OECD	4	Set	
40	SDC CH. CONT. UNIT (CCU) 3PH.IN	0P6257	SDC CH. CONT. UNIT (CCU) 3PH.IN A070	GUTOR/SCH NEIDER	EU/G7/ OECD	1	PCS	*

41	CAPACITOR	202-3682	CE 6800UF 350VDC STUD	GUTOR/SCH NEIDER	EU/G7/ OECD	8	PCS	*
42	FAN	0M-94028	SUB ASSEMBLY FAN 230 VAC FOR ROOF XXW	GUTOR/SCH NEIDER	EU/G7/ OECD	4	PCS	*
43	PCB ASSY XXW CONTROLLER	0P3895AC	PCB ASSY XXW CONTROLLER A070 - Module được cài đặt đầy đủ các chức năng và thông số hoạt động cho Type Gutor SDC 220-1000-D - Data Sheet và Operation Manual, Maintenance Manual của bo mạch điều khiển. - Hỗ trợ kỹ thuật trong quá trình lắp đặt khi có lỗi xảy ra.	GUTOR/SCH NEIDER	EU/G7/ OECD	1	PCS	*
44	CAPACITOR	202-5222	CE 2200UF 500VDC STUD UL	GUTOR/SCH NEIDER	EU/G7/ OECD	16	PCS	*
45	FAN	0M-8190	SUB ASSEMBLY FAN 230VAC DUAL SPEED XXW	GUTOR/SCH NEIDER	EU/G7/ OECD	6	PCS	*
46	FAN	0M-94028	SUB ASSEMBLY FAN 230 VAC FOR ROOF XXW	GUTOR/SCH NEIDER	EU/G7/ OECD	6	PCS	*
47	Battery	2SLA620L	- Nominal voltage: 2V. - Performance: 620 Ah C10 1,80V/cell 20°C. - Float charge: 2,27V/cell at 20°C. - Max charge current: 155A. - Internal Resistance: 0,14 mOhm. - Short circuit current: 14500A - Nominal dimension: + Length: 308 mm + Width: 174 mm + Height: 245 mm	FIAMM	EU/G7/ OECD	1010	PCS	

48	POWER MODULE 1/2 165 - 545VDC 705ARMS (INVERTER POWER MODULE)	0C0083A	- POWER MODULE 1/2 165 - 545VDC 705ARMS (INVERTER POWER MODULE) - Module được cài đặt đầy đủ các chức năng và thông số hoạt động cho Gutor PDW 3250-400/400-EAN-D Type_ Song Hau 1 Terminal Power Plant - Data Sheet và Installation/ Operation Manual, Maintenance Manual của bo mạch điều khiển, các thiết bị như là IGBT vvv có trong bộ Power Module - Hỗ trợ kỹ thuật trong quá trình lắp đặt khi có lỗi xảy ra.	GUTOR/SCH NEIDER	EU/G7// OECD	2	Set	*
49	FUSE SEMIC. 600A/700VFWP + IND. UL/CSA	515-9246	- FUSE SEMIC. 600A/700VFWP + IND. UL/CSA	GUTOR/SCH NEIDER	EU/G7// OECD	4	PCS	*
50	XXW I/F BOARD 400 VDC	0P2407A	- XXW I/F BOARD 400 VDC - Module được cài đặt đầy đủ các chức năng và thông số hoạt động cho Gutor PDW 3250-400/400-EAN-D Type - Data Sheet và Installation/Operation Manual, Maintenance Manual của bo mạch điều khiển, các thiết bị như là IGBT vvv có trong bộ Power Module - Hỗ trợ kỹ thuật trong quá trình lắp đặt khi có lỗi xảy ra.	GUTOR/SCH NEIDER	EU/G7// OECD	2	PCS	*
51	PSU 24VDC 120W IN 200- 500VAC/300- 700VDC	920-0077A	- PSU 24VDC 120W IN 200-500VAC/300-700VDC	GUTOR/SCH NEIDER	EU/G7// OECD	2	PCS	*
52	INDICATOR F. SEMIC FUSE TYPE MT/MMT	515-9017	- FUSE SEMIC. 600A/700VFWP + IND. UL/CSA	GUTOR/SCH NEIDER	EU/G7// OECD	5	PCS	*
53	FUSE DIN 4A 1250A KGL/GG	515-9140	- FUSE DIN 4A 1250A KGL/GG 500VAC/480VDC	GUTOR/SCH NEIDER	EU/G7// OECD	2	PCS	*

54	500V AC/480V DC	Miniature plug in relay	RXM3AB2BD	- Product or component type: Plug-in relay - Contacts type and composition: 3 C/O - Uc control circuit voltage 24 V DC - Status LED With - Control type: Lockable test button - Utilisation coefficient: 20 % - Ui rated insulation voltage: 250 V - Uimp rated impulse withstand voltage: 4 kV during 1.2/50 µs- Contacts material: AgNi - Ie rated operational current: + 10 A at 28 V (DC) NO conforming to IEC+ 10 A at 250 V (AC) NO conforming to IEC - Continuous output current: 6.7 A - Maximum switching voltage: 250 V conforming to IEC - Resistive rated load: + 10 A at 250 V AC + 10 A at 28 V DC - Drop-out voltage threshold: $\geq 0.1 U_c$ - Operate time: 20 ms - Release time: 20 ms - Average coil resistance: 650 Ohm at 20 °C +/- 10 % - Rated operational voltage limits: 19.2...26.4 V DC	SCHNEIDER	EU/G7/OECD	2	PCS	
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55	EARTH FAULT RELAY	Model: EGR- 20UFCM	- Current setting range: 0,03A - 20 A - Operating voltage: 100 ~ 240V AC/DC - Time setting range: + Ground fault trip time: 0.03, 0.05, 0.1 ~ 10 sec + Ground fault delay time: 0 ~ 30 sec - Frequency: 50/60 Hz - Output relay: + Form: 1-SPDT(1c) + Rating: 3A / 250Vac (Resistive load) - Reset Method: Manual reset/ Auto reset - ZCT type (Voltage/Current type): 200mA/1.5mA or 200mA/100mV - Communication: Modbus RTU - Installation: Flush Panel Mount.	SCHNEIDER	EU/G7/ OECD	5	Set	
56	AC CURRENT TRANSDUCER	DT-3AB1AB	- Connection: 3 in 1 packaging (3 ø) - Input: 01 A (0 - 1A AC) - Output: 04 - 20 mA DC - Sensing type: Average Sensing - Aux. Power: 115/ 230V AC - Accuracy (at 25°C): ± 0,2% - Mounting: Wall or DIN rail (35mm)	DAEJOO	EU/G7/ OECD	2	PCS	
57	Control Transformer	RC-50	Type : Dry Type Cooling type : Natural air cooling Rated capacity : 15VA up to 3000VA Rated capacity : 15VA up to 3000VA Cooling type : Natural air cooling Rated voltage : Below 690V Insulation : B, F, H Rated frequency : 50/60 Hz Rating condition : Continuous rating Phase : Single phase Ambient temp. : 40 °C Voltage ratio : ± 1 % Dimension (WxDxH): 76 x 86 x 91 mm	Obok	EU/G7/ OECD	10	PCS	

58	TIMER LIGHTING	KG316T-II	Digital electronic timer: KG316T-II Điện áp nguồn: 220V/50Hz Dải điện áp: 176 ~ 250V Công suất tải điện trở chuyển đổi: 25A Tải cảm ứng: 20A Công suất tiêu thụ: <3VA Phạm vi hẹn giờ: 1 phút-168 giờ Hẹn giờ thông thường: ON/OFF 18 lần (ngày/tuần) Time erro: <1s/ngày (25°C) Nhiệt độ môi trường: -25 ~ 60°C Độ ẩm tương đối: <95% Kích thước: 99*56*42mm Có tính năng Ngủ đông	ANY ELECTRONI CS	EU/G7/ OECD	25	PCS	
59	Exit Lighting	KT110	- Nguồn điện sạc: AC 220V/50Hz - Công suất: 3W - Bóng đèn Led: Led Owan - Pin sạc LI-ION: 3.7V 2000mAh - Dòng điện sạc: 60mA - Thời gian sạc đầy: 24 giờ - Thời gian thấp sáng: 3 giờ (chế độ DC) - Lắp đặt : Dạng móc treo	Kentom		25	Set	
60	Switch (Surface Mount triple Pole Isolating Switch).	WHT55_GY	- Range: Kavacha - Product or component type: Isolating switch - Rated operational current: 55 A at 440 V AC. - Poles description :3P - Width 82 mm - Height 170 mm - Depth 90 mm - IP degree of protection: IP66	Schneider	EU/G7/ OECD	15	PCS	

61	CURRENT CONTROL RELAY	RM35JA32MW	- Relay type: Current control relay- Time delay: + Adjustable 1...20 s, 0 + 10 % on energisation - Ti+ Adjustable 0.3...30 s, 0 + 10 % on crossing the threshold Tt- Switching capacity in VA: 1250 VA- Minimum switching current: 10 mA at 5 V DC- Maximum switching current: 5 A AC/DC- Contacts type and composition: 2 C/O- Reset time: 1500 ms time delay- - Maximum switching voltage: 250 V AC/DC- Rated supply voltage 24...240 V AC/DC 50/60 Hz +/- 10 %- Hysteresis: 5...50 % of threshold setting- Local signalling: +LED (green) for power ON+LED (yellow) for relay ON- - Electrical durability: 100000 cycles- - Mechanical durability 300000000 cycles -Width 35 mm - Net weight 0.13 kg - Ambient air temperature for storage: -40...70 °C - Ambient air temperature for operation: -20...50 °C - IP degree of protection + IP20 (terminals) conforming to IEC 60529 + IP30 (casing) conforming to IEC 60529 - IF (AV) (Average Forward Current): 25 A - VRSM (Non-Repetitive Peak Reverse Voltage): 800 V - VRRM (Repetitive Peak Reverse Voltage): 800 V - I FSM (Surge peak forward current): 375 A - VF: 1,55 V - V TO (Threshold voltage): 0.85V - rT (Forward slope resistance): 11mΩ - Tvj (Temperature of p-n junction): 180 °c	SCHNEIDER	EU/G7/ OECD	2	PCS	
62	STUD DIODE	SKR 26/08	- IF (AV) (Average Forward Current): 25 A - VRSM (Non-Repetitive Peak Reverse Voltage): 800 V - VRRM (Repetitive Peak Reverse Voltage): 800 V - I FSM (Surge peak forward current): 375 A - VF: 1,55 V - V TO (Threshold voltage): 0.85V - rT (Forward slope resistance): 11mΩ - Tvj (Temperature of p-n junction): 180 °c	Semikron	EU/G7/ OECD	4	PCS	

63	MULTI FUNCTION TIMER	AT11DN	- Type: Analog timer - Number of plug pins: 11-pin plug type - Time operation: time limit DPDT (2c) - Power supply: AC 100~240V 50/60Hz ; DC 24~240V - Contact: 250VAC 5A - Time range: 10 Sec - Return time: Max. 100ms - Timing operation: signal ON start - Input: INHIBIT, START, RESET: [No-voltage input] - Control output (Contact capacity): 250VAC ~ 5A, 24VDC ~ 5A resistive load - Relay life cycle: Mechanical Min. 10,000,000 operations ; Electrical Min. 100,000 operations (250VAC 5A resistive load) - Repeat error: Max. $\pm 0.2\%$ ± 10ms - SET error: Max. $\pm 5\%$ ± 50ms - Voltage error: Max. $\pm 0.5\%$ - Shape dimension: 48x48 mm; Depth: 79.5mm	Autonics	EU/G7/ OECD	2	PCS	
64	MULTI- CHANNEL FIBER-OPTIC MONITOR	E-GRID-12-A- Y08-MTCP	- Number of channels: 12- Reading temperature range -40 °C to 225 °C- Temperature accuracy: ± 1 °C- Resolution: 0.1 °C; - Sampling rate (per channel): 500 ms- Operating temperature: -20°C to 60°C- Light source life: Life of the Transformer- Humidity: 95% RH Non-Condensing- Display Large: 7" TFT Color display (800x480)- System Configuration Touch Screen Panel or USB Remote- Internal monitor temperature: + CCD, Board & System Temperature+ Available with data logging- Communication ports USB, RS-485, RS-422 & Ethernet (RJ45)- Communication Protocols: Modbus TCP-IP- Analog Output: 4-20 mA, User Configurable- Number of Relays: 1	FISO	EU/G7/ OECD	1	PCS	

65	DIODE	6A60	System Fault Relay + 8 Programmable Relays.- System fault relay 1 Dedicated System Fault Relay- System Status Indicator: LED- Memory: 4 GB Memory & User configurable, > 30 Years at 1 measurement/minute Correct: Continuous Internal Temperature Compensation Signal Level - Input Power: 24 VDC - Power consumption: 40W (maximum) - Surge Protection: 4000V (IEEE C37.90.1 - 2002) - VRRM (Maximum Recurrent Peak Reverse Voltage): 600 V - VRMS (Maximum RMS Voltage): 420 V - VDC (Maximum DC Blocking Voltage): 600 V - IF (AV) (Maximum Average Forward Rectified Current, 375"(9.5mm) Lead Length, TA=60°C): 6 A - IFSM (Peak Forward Surge Current, 8.3 ms Single Half Sine-wave, Superimposed on Rated Load (JEDEC method)): 250 A - VF (Maximum Instantaneous Forward Voltage, 6 A): 0,95 V - IR (Maximum DC Reverse Current at, TA=25 °C): 10 uA - IR (Rated DC Blocking Voltage, TA=125°C): 400 uA - Tj (Operating Temperature Range): -65 to +150 °C - Dimension: 9,1 x 59,9 x 7,2 mm	Taiwan Semiconductor	EU/G7/ OECD	4	PCS	
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66	FAST RECOVERY RECTIFIER (DIODE)	FR607	Model: FR607 - VRRM (Peak Repetitive Reverse Voltage): 1000 V - VRMS (Maximum RMS Voltage): 700 V - VDC (Maximum DC Blocking voltage): 1000 V - I (AV) (Maximum Average Forward Rectified Current 9.5mm Lead Length): 6 A - IFSM (Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)): 300 A - VF (Maximum Instantaneous Forward Voltage, 6.0A DC): 1,3 V - IR (Maximum DC Reverse Current at Rated Blocking Voltage, TA = 25 °C): 10 µA. - Tj (Operating Junction Temperature Range): - 65 to +175°C - Dimension: 9,1 x 59,9 mm	Generic	EU/G7/ OECD	4	PCS	
67	RTD Transducer	KTP -1162S	- Input: PT100 Ω (Sensor 03 wires) - Temperature range: 0~200°C- DC Output: 4 ~ 20mA- Aux. Power: 24 VDC - Number of outputs: 01 Output - Class: 0.5 - Operating temperature: -10~50°C - Operating humidity: 20 ~ 85% - Withstand voltage AC: 2kV /1 min - Insulation resistance: More than 10MΩ - Weight: 500g	Light star	EU/G7/ OECD	2	PCS	

68	Flexible hose (For Transformer Oil Dissolved Gas and Moisture Monitor panel - Kelman MINITRANS)	MWP 1800PSI@700F/ HAM-LET, SHF604- TS1/4TS1/4- 5M,809254-1	- Flexible hose ¼ in. ID low pressure, 316 stainless steel braid over stainless steel metal flexible hose with welded ¼ in. compression fittings on each end.	HAM-LET	EU/G7/ OECD	2	PCS	
69	Flexible hose (For Transformer Oil Dissolved Gas and Moisture Monitor panel - Kelman MINITRANS)	MWP 1800PSI@700F/ HAM-LET, SHF604- TS1/4TS1/4- 2M,809254-2	- Flexible hose ¼ in. ID low pressure, 316 stainless steel braid over stainless steel metal flexible hose with welded ¼ in. compression fittings on each end.	HAM-LET	EU/G7/ OECD	2	PCS	
70	MULTI TRANSDUCER	DPT521-401	POWER SUPPLY: AC/DC 47-276V, 50/60 Hz - Multi transducer - Wide-range voltage and current inputs (100/57 V to 693/400 V, 1-5(10) A) - Wide-range auxiliary supply: 40-276 V AC/DC, or 24-48 V DC - RS-485 Modbus interface - Up to two digital outputs (energy pulses) - Class 0,5 and 0,2 accuracy variants - DIN-rail mounting, EN 50022-35 (35 mm)	CEWE	EU/G7/ OECD	2	PCS	

71	DIODE BLOCK	EMG22-DI04E	- Product type: Diode module - Diode type: 1 N 4007 - Max. operating voltage U_{max}: 250 V AC - Peak reverse voltage per diode: 1300 V - Reverse current per diode: 5 µA - Conducting state voltage per diode: approx. 0.8 V - Conducting state current per diode: + 1.5 A (with single load). + 0.5 A (with simultaneous loads). - Stripping length: 8 mm - Screw thread: M3 - Connection method: Screw connection - Dimension: + Width: 22.5 mm + Height: 75 mm + Depth: 55 mm - Ambient temperature (operation): -20 °C ... 50 °C - Mounting type: DIN rail mounting - Weight: 45,18 g	PHOENIX CONTACT	EU/G7/OECD	2	Set	
72	Power Transducer	DT-RTDC1HS	- Full Scale input: PT 100 Ω at 0°C, 3 wires (over 50°C) - Input: 0 - 150°C - Output: 04 - 20 mA DC - Aux. Power: 220 V DC - Output: one output - Accuracy (at 25°C): ± 0,2% - Mounting: Wall or DIN rail (35mm)	DAEJOO	EU/G7/OECD	2	PCS	

73	MULTI TRANSDUCER	DPT521-401	POWER SUPPLY: AC/DC 47-276V, 50/60 Hz - Multi transducer - Wide-range voltage and current inputs (100/57 V to 693/400 V, 1-5(10) A) - Wide-range auxiliary supply: 40-276 V AC/DC, or 24-48 V DC - RS-485 Modbus interface - Up to two digital outputs (energy pulses) - Class 0,5 and 0,2 accuracy variants - DIN-rail mounting, EN 50022-35 (35 mm)	CEWE	EU/G7/ OECD	2	PCS	
74	DIODE BLOCK	EMG22-DI04E	- Product type: Diode module - Diode type: 1 N 4007 - Max. operating voltage U_{max}: 250 V AC - Peak reverse voltage per diode: 1300 V - Reverse current per diode: 5 µA - Conducting state voltage per diode: approx. 0.8 V - Conducting state current per diode: + 1.5 A (with single load). + 0.5 A (with simultaneous loads). - Stripping length: 8 mm - Screw thread: M3 - Connection method: Screw connection - Dimension: + Width: 22.5 mm + Height: 75 mm + Depth: 55 mm - Ambient temperature (operation): -20 °C ... 50 °C - Mounting type: DIN rail mounting - Weight: 45,18 g	PHOENIX CONTACT	EU/G7/ OECD	2	Set	

75	Power Transducer	DT-RTDC1HS	- Full Scale input: PT 100 Ω at 0°C, 3 wires (over 50°C) - Input: 0 - 150°C - Output: 04 - 20 mA DC - Aux. Power: 220 V DC - Output: one output - Accuracy (at 25°C): $\pm 0,2\%$ - Mounting: Wall or DIN rail (35mm)	DAEJOO	EU/G7/ OECD	2	PCS	
76	AUXILIARY RELAY	NE22 220-230 VDC 50Hz	- Product Net Width: 44 mm - Product Net Depth / Length: 74 mm - Product Net Height: 74 mm - Product Net Weight: 0.34 kg - Number of Auxiliary Contacts NO: 2 - Number of Auxiliary Contacts NC: 2 - Rated Operational Voltage: Auxiliary Circuit 690 V - Rated Control Circuit Voltage (Uc): 50 Hz 220 ... 230 V - Rated Frequency (f): Supply Circuit 50 / 60 Hz - Long Description: N... contactor relays are used for switching auxiliary circuits and control circuits - Poles: 4-pole contactor relays (mechanically linked contact elements available) - Control circuit: AC operated with laminated magnet circuit - Accessories: a wide range of accessories is available. - Temperature: Close to: -60 ... +80 °C - in Free Air (0.85 ... 1.1 Uc) -40 ... 55 °C +Near Contactor for Operation in Free Air (Uc) -40 ... 70 °C	ABB	EU/G7/ OECD	1	PCS	

77	DIODE	MDA55A-1600V	Model: MDA55A-1600V - IF (Mean forward current): Max 55 A - IF (RMS forward current): Max 86 A - VRRM (repetitive peak reverse voltage): + Min: 600 V + Max: 1600 V - IRRM (repetitive peak current): Max 8 mA - ISFM (surge forward current): 1,3 kA - VFO (Threshold voltage): 0,8 V - rF (Forward stop resistance): 3,47 mΩ - VFM (Peak forward voltage): 1,45 V - Viso (Isolation voltage): Min 2500 V - Fm: + Terminal connection torque (M5): 4 N.m + Mounting torque (M6): 6 N.m - T (Stored temperature): -40 °C - 125 °C - Wt (Weight): 115 g - Dimension: 20 x 92 x 35,5 mm - Contact rating: 10A, 24 VDC - Pole no.: 2 pole - Coil rating voltage: 220 VDC - Operation voltage (V): below 80% + Return voltage (V) above 10% + Max. allowable voltage (V): 110% - Terminal type: socket type - Led: diode type - Socket relay: + Pole No.: 2 Poles + Insulation resistance: above 100MΩ(DC 500V. Meg) + Withstand voltage AC: 2,000V/min(50~60Hz) + Rating Insulation voltage AC/DC: 250V	Liujing		4	PCS	
78	Mini Power Relay + Socket relay	- Relay: YSLY10-2P 220DSD - Socket: YS SKLY-2	- Contact rating: 10A, 24 VDC - Pole no.: 2 pole - Coil rating voltage: 220 VDC - Operation voltage (V): below 80% + Return voltage (V) above 10% + Max. allowable voltage (V): 110% - Terminal type: socket type - Led: diode type - Socket relay: + Pole No.: 2 Poles + Insulation resistance: above 100MΩ(DC 500V. Meg) + Withstand voltage AC: 2,000V/min(50~60Hz) + Rating Insulation voltage AC/DC: 250V	Yosung		4	Set	EU/G7/ OECD

79	CERAMIC FUSE	KFS-B02	Dimension: Ø10×38mm Rate current: 2A Rate voltage: 500VAC/DC Rated short-circuit strength: 50kA	KACON	EU/G7/ OECD	2	PCS	
80	GLASS & CERAMIC FUSE HOLDER	KF-32L	Fuse size: Ø10×38mm Rate current: 32A Rate voltage: 690VAC Cylindrical Type Dimensions (WxDxH): 18x61x78.2 mm	KACON	EU/G7/ OECD	2	PCS	
81	Ultrafast recovery DIODE	STTH61R04TV 2	- Diode Configuration: 2 Independent - VRRM: 400 V - VRSM: 400 V - IF (RMS) (RMS forward current): 60 A - IF (AV) (Average forward current, $\delta = 0.5$): 30 A - IFRM (Repetitive peak forward current $t_p = 5 \mu s$, $F = 1$ kHz square): 900 A - IFSM : 350 A - Tj 150 °C - IR Tj = 25° C, VR = VRRM: 15 μA - VF Tj = 25° C, IF = 30 A: 1.45 V - Dimension: 38,2 x 12,2 x 25,5 mm	STMicroelectr onics	EU/G7/ OECD	4	Set	

82	Trip circuit Supervision Relay	SPER 1B1 C4	Monitored circuit: - Voltage of monitored circuit 40...265 V DC - Measuring current, typ. 1.5 mA - Minimum residual voltage over the monitored circuit: > 40 V DC - Typical resistance at: + 48 V dc 1.2 kΩ/4W; + 60 V dc 5.6 kΩ/4W; + 110 V dc 22 kΩ/4W; + 220 V dc 28.8 kΩ/4W or 33 kΩ/4W Time circuit: - Operate delay, typ: 3 s; - Reset time, typ: 1 s Auxiliary supply voltage and current: - Rated voltage Un 48/60/110/220 V DC - Operation voltage 40...265 V dc - Current drain, typ. 7 mA Output relay: - Terminals 1-3-4/8-9-11 - Rated voltage 250 V ac/dc - Continuous carry (L/R ≤ 40 ms) at 220/110/48 V DC: 0.15/0.25/1 A Tests and standards: - Dielectric test voltage (IEC 60255-5): 2 kV, 50 Hz, 1 min - Impulse test voltage (IEC 60255-5): 5 kV, 1.2/50 μs, 0.5 J - Weight: ~0.2 kg Accessories: PC-ZL 2, terminal socket, RS 961 051-AA, 5 pieces	ABB	EU/G7/ OECD	2	Set	
83	DIODE MODULE	KD60HB-160	Type: Rectifier diode Connection: K-com. Voltage [V]: 1600 Current [A] (/chip): 60 Current [A] (total): 120 IF(AV): 60A (11°C) IFSM [A(50Hz/60Hz)]: 1100/1200 I2t [A2s]: 6000VFM [V(25°C)]: 1.35	Sanrex	EU/G7/ OECD	1	Set	

84	Fan ventilator	MV-101	IRRM [mA]: 20(150°C) Rthj-c [°C/W]: 0.5 - Power supply: 1 phase, 220 V AC - Blade size: 25 cm - Frequency: 50 Hz - Current: 0,27 A - Power Input: 46 W - Revolution per minute: 1300 RPM - Pole: 4P - Air volume: 425 CFM - Air pressure: 30 pa - Weight: 2,3 kg - Dimension: 356 x 167 x ø301	MANSEUNG	EU/G7/ OECD	2	PCS		
85	Main Switch	P1-32/EA/SVB	Technical data General: - Overvoltage category/pollution degree: III/3 - Rated impulse withstand voltage Uimp: 6000 V AC - Mechanical shock resistance: 15g - Mounting position: As required - Dimension: 65 x 119 x 65 mm Contacts: - Number of poles: 3 pole - Auxiliary contacts: + N/O: 0; N/C: 0 - Electrical characteristics: + Rated operational voltage Ue: 690 V AC + Rated uninterrupted current Iu: 32 A + Note on rated uninterrupted current Iu Rated uninterrupted current Iu: is specified for max. cross-section. - Load rating with intermittent operation, class 12 + AB 25 % DF: 2 x Ie; + AB 40 % DF: 1.6 x Ie; + AB 60 % DF: 1.3 x Ie	EATON	EU/G7/ OECD	2	PCS		

86	Auxiliary contact	HI11-P1/P3E	Switching capacity - Cos ϕ rated making capacity as per IEC 60947-3: 320 A - Rated breaking capacity cos ϕ to IEC 60947-3: + 230 V: 260 A; + 400/415 V 300 A; + 500 V 290 A; + 690 V: 250 A - Rated current switch: 440 V: Ie 32 A General specifications: - Dimension: (Length/Depth) 41 x (height) 83 x (width) 15 mm General information: - Connection type: Screw connection - Model: Top mounting - Mounting method: Side mounting - Mounting position: Left side, Right side - Product category Accessories - Type: Auxiliary contact- Used with P1, P3 Electrical rating: - Rated insulation voltage (Ui): 500 V - Rated operational current (Ie): 0.55 A at DC-13, 250 V - Rated operational current (Ie) at AC-15, 220 V, 230 V, 240 V: 6 A - Rated operational current (Ie) at DC-13, 125 V: 1.1 A - Rated uninterrupted current (Iu): 10 A Contacts: - Control circuit reliability: 1 failure per 100,000 switching operations statistically determined, at 24 V DC, 10 mA) - Number of contacts (change-over contacts): 0- - Number of contacts (normally closed contacts): 1 - Number of contacts (NC contacts): 1	EATON	EU/G7/OECD	2	PCS	
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87	POWER SUPPLY UNIT	PM1207 (6EP1332- 1SH71)	Technical specifications: - Product: S7-1200 PM1207 - Power supply, type: 24 V/2.5 A Input: - Input: 1-phase AC - Supply voltage 1 with AC Rated value: 120 V - Supply voltage 2 with AC Rated value: 230 V - Overvoltage resistance: $2.3 \times V_{in}$ rated, 1.3 ms - Rated line frequency: 50 ... 60 Hz - Input current at rated input voltage 120 V Rated value: 1.2 A - Input current at rated input voltage 230 V Rated value: 0.67 A - Switch-on current limiting (+25 °C), max: 13 A	SIEMEN	EU/G7/ OECD	1	PCS	
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[illegible]

88	BỘ ĐÈN PHA LED	H1FL-SD1- 260C/N/W -X	- Công suất: 250-300W; - Công suất danh định: 2x 150W; - Quang thông: 40.000-41.000 lumen; - Nhiệt độ màu: 3000 – 5000K, vàng; - Hiệu suất tổng (lm/W): 155-160; - Chất liệu vỏ: Nhôm đúc áp lực cao; - Kích thước (mm): 514x372x163 (DxRxH) - Cấp bảo vệ: IP66; - Chống sét lan truyền; - Điện áp: AC 190V-265V; 50hz - Tuổi thọ (h): > 50000	I.O.T	EU/G7/ OECD	20	Set	
89	UPS	TECTO Q 3000 ER	- Dimensions: (H x W x D) in mm: 402 x 553 x 280 mm - Rating: - Rating in VA: 3000 VA - Rating in W: 2700 W - Power factor cos ϕ: 0,9 - Input: - Nominal voltage 220 / 230 / 240 V AC - Input voltage range at 50% load 140 – 276 V - Input voltage range at 100% load 184 – 276 V - Input frequency range 50 Hz $\pm$ 5% / 60 Hz $\pm$ 5% - Nominal frequency Standard 50 Hz, adjustable via software on 50 Hz, 60 Hz or auto select - Tolerance of frequency $\pm$ 5 % - Maximum input current in A: 16A - Power factor (cos ϕ) > 0,98 - Current distortion (THDI) $\leq$ 7 % - Output: - Output voltage 230 V (adjustable on 220 or 240 V) - Tolerance of output voltage - static $\pm$ 1,5 %	J.SCHNEIDER	EU/G7/ OECD	1	Set	*

90	UPS	proTECTO Q 1500	Dimensions: (H x W x D) in mm: 232 x 421 x 237 mm Rating: - Rating in VA: 1500 VA; - Rating in W: 1350 W; - Power factor cos ϕ: 0,9 - Back-up time 100% load and cos ϕ 0,7: 5 mins; 50% load and cos ϕ 0,7: 15 mins Input: - Nominal voltage 220 / 230 / 240 V AC; - - Input voltage range at 50% load 140 – 276 V; - Input voltage range at 100% load 184 – 276 V; - Input frequency range 50 Hz $\pm$ 5% / 60 Hz $\pm$ 5%; - Nominal frequency Standard 50 Hz, adjustable via software on 50 Hz, 60 Hz or auto select ; - Tolerance of frequency $\pm$ 5 % - Maximum input current in A: 8,2A; - Power factor (cos ϕ) > 0,98 - Current distortion (THDI) $\leq$ 7 % Output: - Output voltage 230 V (adjustable on 220 or 240 V) - Tolerance of the output voltage - static $\pm$ 1,5 % - Tolerance of the output voltage - dynamic(load impact 0 to 100%) $\leq$ 5 % - Voltage reset after dynamic variation < 20 ms - Wave form of the output voltage Sinusoidal - Output frequency in normal operation 50 or 60 Hz $\pm$ 5 % - Rate of frequency adjustment 1 Hz / s - Output frequency in battery operation 50 or	J.SCHNEIDER	EU/G7/ OECD	1	Set	*
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91	Contactor relay	3RH2131-1AP00	- Battery test: Automatical each 40 hours Connections: - Input: IEC 10 A; - Output: 4 x IEC 10 A - Fusing input of the UPS (Thermal fuse) in A: 10 Protection: - Protective devices: overcurrent – short-circuit- overvoltage -undervoltage- Heat – deep discharge protection of batteries - Surge voltage strength: IEC 801-5 6 KV 1.2 / 50 μsec; 3 KA 8/20 μsec; 300 Joule Housing: - Material Sheet steel / front plastics; - Colour: Black- Protective class IP 20	SIEMENS	EU/G7/ OECD	10	PCS		

							+ Surge voltage resistance rated value: 6 kV - Control circuit/ Control: type of voltage of the control supply voltage AC + control supply voltage at AC: ● at 50 Hz rated value 230 V + Control supply voltage frequency: ● 1 rated value 50 Hz + Closing delay ● at AC 8 ... 33 ms + Opening delay ● at AC 4 ... 15 ms + Arcing time 10 ... 15 ms - Auxiliary circuit: + Number of NC contacts for auxiliary contacts 1 ● instantaneous contact: 1 + Number of NO contacts for auxiliary contacts 3 ● instantaneous contact: 3 + Identification number and letter for switching elements: 31 E + Operational current at AC-12 maximum: 10 A - Dimension (HxWxD): 57.5 x 4 x 73 mm - Mounting: fastening method: screw and snap-on mounting onto 35 mm DIN rail - Connections/ Terminals: type of electrical connection for auxiliary and control circuit screw-type terminals
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92	Surge suppressor	3RT2916- 1BD00	- General technical data: + Size of contactor: S00 + Type of voltage of the control supply voltage: AC/DC + control supply voltage 1 at AC ● at 50 Hz 127 ... 240 V ● at 60 Hz 127 ... 240 V+ Control supply voltage frequency: ● 1 rated value 50 Hz ● 2 rated value 60 Hz+ Control supply voltage 1 at DC: ● 150 ... 250 V - Mounting: + Fastening method: clip-on - Dimensions (HxWxD): 46 mm X 28 mm X 9 mm	SIEMENS	EU/G7/ OECD	10	PCS	
93	Fan ventilator	MV-101	- Power supply: 1 phase, 220 V AC - Blade size: 25 cm - Frequency: 50 Hz - Current: 0,27 A - Power Input: 46 W - Revolution pè minute: 1300 RPM - Pole: 4P - Air volume: 425 CFM - Air pressure: 30 pa - Weight: 2,3 kg - Dimension: 356 x 167 x ø301	MANSEUNG	EU/G7/ OECD	1	PCS	
94	ELECTRONIC CARD BUCK24	SKDXX0801	- ELECTRONIC CARD BUCK24 (Vật tư cho hệ thống tủ nguồn UPS của CEG, do đó vật tư này cần mua dự phòng phải tương thích với hệ thống tủ nguồn UPS hiện tại của nhà máy.	CEG	EU/G7/ OECD	1	PCS	*

95	DC/DC CONVERTER 24VDC 100W VIN	DRL100-24-1	- Input: Single-phase - Input Voltage Range[AC]: 85 to 264Vac - Input Voltage Range[DC]: Efficiency 90% - Type : Rated Output Voltage[DC] 24Vdc - Output Voltage Range[DC]: 24 to 28Vdc - Maximum Output Current: 4.2A - Maximum Output Power: 100.8W	TDK - Lambda	EU/G7/ OECD	2	PCS	
96	ALIMENTATO RE PIATTAFORM A UPS BUCK +/- 15_5	SKDXX0071	- ALIMENTATORE PIATTAFORMA UPS BUCK +/- 15_5 (Vật tư cho hệ thống tủ nguồn UPS của CEG, do đó vật tư này cần mua dự phòng phải tương thích với hệ thống tủ nguồn UPS hiện tại của nhà máy) General technical data: - Size of fuse system according to EN 60269-1: NH3 - Operating class of the fuse link: Gs - Varying load factor (WL) 1 - Type of voltage of the operating voltage: AC/DC - Operating voltage at AC according to UL rated value: 690 VDimension: 151 x 70 x 70 mm Rate current: 800 A Supply voltage: - At AC 690 V - At DC 440 V Breaking Capacity: switching capacity current - According to IEC 60947-2 rated value: 100 kA Dissipation: - Power loss: 58 W Product details: - Product description: with blade contacts, silver-plated	CEG	EU/G7/ OECD	1	PCS	*
97	SITOR fuse link	3NE1438-0		SIEMENS	EU/G7/ OECD	4	PCS	

98	Power electronic capacitor	B3236 1B2207-J050	- Accessories included: no Mechanical Design: - Mounting position: Any, preferably vertical- - Net weight: 1184 g Environmental conditions: ambient temperature during operation: -20 °C ~ 50 °C - Capacitance: 200 uF - DC rated voltage: 675 VDC - AC rated voltage: 350 VAC - Voltage V(RMS): 250 V - Terminals type: M6 (2x) screw terminals - Dielectric: Metallized Polypropylene (PP) film - Length (High): 142 mm - Diameter: 63.5 mm - Product: Film Capacitors - Tolerance: 5% - Maximum working temperature: 85C - Product Type: Film Capacitor - Mounting and grounding: Threaded stud on bottom	TDK Europe (EPCOS)	EU/G7/OECD	4	PCS	
99	BOX CAPACITORS	C4BSMBX4220 ZA0J	- Rated Voltage (VDC or VAC): 850 V - Capacitance (uF): 2.2 uF - Tolerance (%): ±5 % - Maximum Operating Temperature (°C): 85 - ESR (mΩ): 1,9 mΩ - ESL (nH): 43 nH - IRMS (A): 37 A - IPKR (A): 1668 - dV/dT (V/μs): 758 - Maximum RMS Voltage (VAC): 550 VA - Dimension: 30 x 45 x 42 mm	KEMET	EU/G7/OECD	4	PCS	

100	Power electronic capacitor	B3236 1A2107J050	- Capacitance: 100 uF- DC voltage: 675 VDC- AC rated voltage: 350 VAC- Voltage V(RMS): 250 V- Terminals type: M6 (2x) screw terminals (PP) film 63.5 mm 85 C - Tolerance: 5 % - Product Type: Film Capacitor - Mounting and grounding: Threaded stud on bottom	TDK Europe (EPCOS)	EU/G7// OECD	8	PCS	
101	STANDARD CYLINDRICAL CAPACITOR	416.42.3474	- Height: 72 mm - Diameter: 40 mm - Construction form: CYLINDRICAL - Nominal capacity: 5 µF - Nominal voltage, DC: 890 V - Nominal voltage, RMS: 450 V	DUCATI ENERGIA SPA	EU/G7// OECD	4	PCS	
102	FAN	W2S130AA030 1	- Phase: 01 - Nominal voltage: 230VAC - Frequency: 50Hz - Speed: 2800 min(-1) - Power input: 45W - Current draw: 0.31 A - Material of impeller: Sheet steel, coated in black - Material of wall ring: Die-cast aluminium, coated in black - Direction of rotation: Counter-clockwise, seen on rotor - Insulation class: B - Motor bearing: Ball bearing - Frame dimensions: 150x172x55 mm - Product conforming to standard: EN 60335-1; CE	EBM-PAPST Srl	EU/G7// OECD	12	PCS	

103	Fuse_CH 10 Cylindrical Fuse	1421001	- Rate current: 01 A - Rate voltage: 500VAC - Class : gG - Fuse type: Cylindrical Fuse - Dimension (diameter x length): 10,3 x 38 mm	ITALWEBER Spa	EU/G7/ OECD	10	PCS	
104	Fuse_CH 10 Cylindrical Fuse	1421002	- Rate current: 02 A - Rate voltage: 500VAC - Class : gG - Fuse type: Cylindrical Fuse - Dimension (diameter x length): 10,3 x 38 mm	ITALWEBER Spa	EU/G7/ OECD	10	PCS	
105	Fuse_CH 10 Cylindrical Fuse	1421004	- Rate current: 04 A - Rate voltage: 500VAC - Class : gG - Fuse type: Cylindrical Fuse - Dimension (diameter x length): 10,3 x 38 mm	ITALWEBER Spa	EU/G7/ OECD	10	PCS	
106	Fuse_CH 10 Cylindrical Fuse	1421006	- Rate current: 06 A - Rate voltage: 500VAC - Class : gG - Fuse type: Cylindrical Fuse - Dimension (diameter x length): 10,3 x 38 mm	ITALWEBER Spa	EU/G7/ OECD	10	PCS	
107	Fuse_CH 10 Cylindrical Fuse	1421016	- Rate current: 16 A- Rate voltage: 500VAC- - Class : gG- Fuse type: Cylindrical Fuse - Dimension (diameter x length): 10,3 x 38 mm	ITALWEBER Spa	EU/G7/ OECD	2	PCS	
108	FUSE	5005306. 160	- Rated current/ Rated voltage : 160A/240VAC (150VDC) - Power loss: 22 W - Class: class aR - Size: 17,5 x 40 mm - Tiêu chuẩn: BS 88-4; IEC 60269-4; VDE 0636 PART 40	SIBA	EU/G7/ OECD	3	PCS	

109	URB Fuse	2055820. 250	- Rated current/ Rated voltage : 250A/ 690VAC - Power loss: 47 W - Class: aR - Fitting for Micro Switch - Size: NH000 - Rated Breaking Capacity: 600V/300kA' 700V/200kA	SIBA	EU/G7/ OECD	2	PCS	
110	Knife-edge fuse with striker	68520 160	- Rated current/ Rated voltage : 160A/ 500VAC - Class/ Type: Gg - Fuse construction type according to IEC 60269: NH0 - Fuse melting indicator: With striker - Fuse size: S0 - Standard: IEC60269-1/-2.	SOCOME	EU/G7/ OECD	2	PCS	
111	Knife-edge Fuse with striker	68720315	- Rated current/ Rated voltage : 315A/ 690VAC - Class/ Type: gG - Fuse construction type according to IEC 60269: NH2 - Fuse melting indicator: With striker - Fuse size: S2 - Standard: IEC60269-1/-2.	SOCOME	EU/G7/ OECD	1	PCS	
112	UPS	HD-3KT9	- Capacity: 3000 VA - Input: + Phase: Single phase + Voltage Range: 110 - 300 VAC + Frequency: 40 - 70 Hz, 50/60 Hz - Autoadaptation + Power Factor: > 0,99 - Output: + Voltage Range: 208/220/230/240 x (±1) VAC + Frequency Range: Main mode: 46 - 54 Hz,	Huyn dai	EU/G7/ OECD	1	Set	

113	Contactor	MC-32a/4	56 - 64 Hz; Battery mode: 50 ($\pm 0,1$) Hz/ 60 (± 1) Hz + Crest ratio: 3:1 + Power factor: 0,9 + Output Waveform: Pure Sine Wave + Outlet: universal x3 + terminal - Other: + Backup times (100% load): 7 - 9 mins + Battery input: 12V 7Ah + Battery DC voltage: 96 VDC - Dimension (WxHxD): 192 x 348 x 460 mm - Weight: 29,8/14 kgs - Number of poles: 4P- Contacts configuration: 3NO- Auxiliary contact: 2NO+2NC- Frame size (AF): 40AF- Rated operational current (Ie): 32A- Rated coil voltage: 230VAC- Rated operational voltage (Ue) 690V- Rated insulation voltage (Ui) 690V- Rated frequency 50/60Hz - Rated impulse withstand voltage, Uimp 6kV - Connection type: Screws terminals - Mounting type: DIN rail mounting, Surface mounting (Screw fixing) Approx. weight: 590 g - Dimension: width: 45 mm; height: 73,5 mm; depth: 80,4 mm	LS	EU/G7/ OECD	4	PCS		
114	EOCR	EOCR-PFZ	- Current Setting: + Over Current (OC): Refer to the current setting range table + Under Current (UC): oFF:0.03A-10A: Definite, 0.03~1A: Can select from Definite/Inverse, oFF + Earth Fault Current (EC): 0.03A-10A: Definite, 0.03~1A: Can select from Definite/Inverse, oFF	Schneider	EU/G7/ OECD	4	PCS		

				number of poles for main current circuit 3, number of NO contacts for main contacts 2, number of NC contacts for main contacts 0, type of voltage of the operating voltage AC operating voltage ● at AC — at 50 Hz rated value 48 ... 480 V - Control circuit/ Control type of voltage of the control supply voltage DC control supply voltage 1 at DC ● rated value 24 V control supply voltage ● at DC initial value for signal <1> detection 15 V ● at DC full-scale value for signal<0> recognition 5 V - Installation/ mounting/ dimensions: mounting position vertical height 95 mm; width 45 mm; depth 113.8 mm					
117	Rơ le trung gian kèm chân đế	MY2N-GS DC24		- Điện áp điều khiển: 24V - Dòng định mức: 10A - Số chân: 8 chân đẹp - Số tiếp điểm: 2 cực	OMRON	EU/G7/ OECD	20	PCS	
118	Rơ le trung gian kèm chân đế	MY4N-GS AC220/240		- Điện áp cuộn dây: 220VAC, 240VAC - Số chân: 14 - Hình dạng chân: Dẹt - Tiếp điểm: 4PDT - Dòng điện : 6A (for 70°C), 6A (for 50°C)	OMRON	EU/G7/ OECD	20	PCS	

119	Phase monitoring relay	3UG4512-1BR20	product phase-out The preferred successor type is 3UG5512-1BR20 phase failure and sequence 3x160-690 V analog monitoring relay phase failure and sequence 3 x 160...690 V 50...60 Hz AC 2 changeover contacts screw terminal - General technical data: product function: Phase monitoring relay display version : LED Yes insulation voltage for overvoltage category III according to IEC 60664 ● with degree of pollution 3 rated value: 690 V Degree of pollution: 3 type of voltage ● for monitoring AC ● of the control supply voltage AC surge voltage resistance rated value: 6 kV protection class: IP IP20 - Control circuit/ Control: control supply voltage at AC ● at 50 Hz rated value : 160 ... 690 V - Auxiliary circuit number of NC contacts delayed switching: 0; number of NO contacts delayed switching: 0; number of CO contacts ● for auxiliary contacts: 2; delayed switching :2 - Main circuit: number of poles for main current circuit: 3 ampacity of the output relay at AC-15 ● at 250 V at 50/60 Hz: 3 A; at 400 V at 50/60 Hz: 3 A ampacity of the output relay at DC-13 ● at 24 V: 1 A; at 125 V: 0.2 A; at 250 V: 0.1 A	SIEMENS	EU/G7/OECD	3	PCS	
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120	Contact relay	UMT 31	- Model DC operation - Rated insulation voltage [Ui]: + IEC60947 (V): AC 750 + VDE0660 (V): AC1000 - Rated thermal current [Ith] (AC1): 20A - Auxiliary contacts: 3NO+1NC - Coil voltage: 220VDC - Coil power consumption: + Inrush: 7W + Normal: 7W - Dimensions: (Width × Height × Depth): 44 × 75 × 112 mm	Hyundai	EU/G7/ OECD	4	PCS		
			- operational current at 17 V minimum 5 mA - Connections/ Terminals: product component removable terminal for auxiliary and control circuit: Yes - type of electrical connection: screw-type terminals - Installation/ mounting/ dimensions: height 92 mm; width 22.5 mm; depth 91 mm						

121	Contactar	AF140-30	Number of Poles: 3P Ui~: 220-240 V; 380-415 V; 690 V AC-3 (Kw): 37; 75; 75 AC-3 (A): 200;200;200 Ui: 1000V; GB/T 14048.4 IEC/EN 60947-4-1 Max fuse: 250 A J-Type Rated Impulse Withstand Voltage (Uimp): Main Circuit 8 kV	ABB	EU/G7/ OECD	2	PCS	
122	Hearting Rod		HEATING ROD 1.5KW-L=900MM, G2, IP65, 3X400V, 50HZ, WITH PROTECTION PIPE Weight: 3Kg	Elkume	EU/G7/ OECD	8	PCS	
123	Solid State Timer	W-2F	Điện áp cung cấp : 12, 24 and 220VAC Dòng tải : 1.5A Tần số hoạt động : 50/60Hz Thời gian hoạt động : 3 phút Ngõ ra : Solid state Nhiệt độ làm việc : -10°C đến 55°C Kích thước : 52x52x20mm Trọng lượng : 28g	WIP		5	PCS	
124	Công tắc áp suất	YK-03L	Code: YK-03L Pressure: 27/46 PSI Voltage: 250V Current: 6A	TRANE		5	PCS	
125	Phase Protector	B8001020-024	- P/N: B8001020-024 - Kích thước: 10 x 4 x 7 cm - Khối lượng: 0.30 kg	TRANE		5	PCS	
126	Contactar	MC-32 a	Number of poles :3P - Contacts configuration:3NO - Auxiliary contact: 2NO+2NC - Frame size (AF): 40AF	LS	EU/G7/ OECD	5	PCS	

127	Overload relay	MT-32	- Rated operational voltage, Ue: 690V - Rated insulation voltage, Ui: 690V - Rated impulse withstand voltage, Uimp: 6 KV - Trip class: 10A,20 - Setting range: 0.1-40A - Size(W× H× D) mm:45x75x90 - Weight: 0.17 Kg	Metasol	EU/G7// OECD	5	PCS	
128	Contactor	CLK-20J-P6	- IEC 60947-4-1 JEM 1038 - JIS C 8201-4-1 GB14048.4 - AC 1-2-3-2 / AC 3-2-3-2 - 220-240V-50 Hz, 26/20 A - 220-240- 60Hz, 20/13 A - 2N0, 2NC	TOGAMI ELECTRIC	EU/G7// OECD	10	PCS	
129	Contactor	CLK-26J-P6	- IEC 60947-4-1 JEM 1038 - JIS C 8201-4-1 GB14048.4 - AC 1-2-3-2 / AC 3-2-3-2 - 220-240V-50 Hz, 30/28 A - 220-240- 60Hz, 26/18 A - 2N0, 2NC	TOGAMI ELECTRIC	EU/G7// OECD	5	PCS	
130	Cảm biến tiệm cận	PR30-10A0	- Loại dây và nguồn : Loại AC 2 dây 100-240VAC~ - Đường kính cạnh phát hiện : M30 - Khoảng cách phát hiện : 10mm - Cài đặt : Tắm chấn (lỗi) - Khoảng cách phát hiện tiêu chuẩn : 30×30×1mm(sắt)	Autonics	EU/G7// OECD	3	PCS	
131	Cooling Fan	FP-108HH S1-B2	- Fan Type: Axial - Voltage: 230 V AC - Current: 0,14/ 0,13 A - Power: 33 W - Termination: 2 wires - Dimension: 254 x 254 x 89 mm	COMMONWE ALTH		2	PCS	

132	DIODE MODULE	KD55F160	- VRRM (Repetitive Peak Reverse Voltage): 1600 V- VRSM (Non-Repetitive Peak Reverse Voltage): 1700 V- IF AV (Average Forward Current): 55 A- IF RMS (R.M.S. Forward Current): 86 A- I FSM (Surge Forward Current): 1600/1750 A- Viso (Isolation Breakdown Voltage (R.M.S)): 2500V- Tj (Junction Temperature): - 40 to +125°C - IRRM (Repetitive Peak Reverse Current): Max 15 mA - VFM (Forward Voltage Drop): Max 1,4V - Mounting Torque: + Mounting (M5): 2,7 N.m + Terminal (M5): 2,7 N.m - Wt (Weight): 170 g - Dimension: 25 x 92 x 31 mm	SANREX	EU/G7/ OECD	2	Set	
133	SFP_MULTI MODE, LC, 1.25G	Model: SFP-SX	- Optical cable/media type: Multi Mode Fiber (MMF) - Connector type: LC. - Wavelength: 850nm - Throughput: 1.25Gbps - Operating/Storage Temperature: 00C to 700C - Distance: 220m; 550m	SOLTECH	EU/G7/ OECD	2	PCS	
134	SFP_SINGLE MODE, LC, 1000LX	Model: AT- SPLX10	- Optical cable/media type: Single Mode Fiber (SMF) - Connector type: LC. - Wavelength: 1310nm - Maximum data rate: 1.25Gbps - Operating/Storage Temperature: -400C to 850C - Distance: 10km	ALLIED TELESIS		2	PCS	

135	Miniature Power Relay + Socket relay	MY4N - 4PDT	- Coil Ratings: + Rated voltage: 100/110 VDC + Rated current: 9.0/9.9 mA + Coil resistance: 11,100 Ω + Must operate % of rated voltage: 80% max. + Must release % of rated voltage: 10% min. + Max. voltage % of rated voltage: 110 % - Contact Ratings: + Carry current: 5 A + Max. switching voltage: 250 VAC, 125 VDC + Max. switching current: 5 A - Characteristics: + Contact resistance: 100 mΩ max. + Operate time :20 ms max. + Release time: 20 ms max. - Dimension (W x L x H): 21,5 x 36 x 28 mm - Accessories: socket relay + Model: PYF14A-N + Carry current: 5 A + Dielectric withstand voltage: 2000 VAC/ 1 min + Insulation resistance: 1,000 MΩ min. + Mounting: track-mounted socket + Dimension (W x L x H): 29,5 x 67 x 30 mm	Omron	EU/G7/ OECD	4	Set	
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136	Ultrafast recovery DIODE	STTH61R04TV 2	- Diode Configuration: 2 Independent- VRRM (Repetitive peak reverse voltage): 400 V- VRSM (Non repetitive peak reverse voltage): 400 V- IF (RMS) (RMS forward current): 60 A- IF (AV) (Average forward current, $\delta = 0.5$): 30 A- IFRM (Repetitive peak forward current $t_p = 5 \mu s$, $F = 1 \text{ kHz}$ square): 900 A- IFSM (Surge non repetitive forward current $t_p = 10 \text{ ms}$ Sinusoidal): 350 A- T_j (Maximum operating junction temperature): 150 °C- IR (Reverse leakage current) $T_j = 25^\circ \text{C}$, VR = VRRM: 15 μA - VF (Forward voltage drop) $T_j = 25^\circ \text{C}$, IF = 30 A: 1.45 V - Mounting Type: Chassis Mount - Dimension: 38,2 x 12,2 x 25,5 mm	STMicroelectr onics	EU/G7/ OECD	2	Set	
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137	SYNCHROTAC T® 5	SYN 5302	- Description: Redundant automatic dual-channel synchronizing system - Function: Synchronizing and Paralleling Equipment and Systems for Synchronous Machines and Networks - Auxiliary voltage: + Nominal voltage ranges: 24 /48 VDC, 100 to 125 V AC / DC, 220 to 250 VDC. + Permissible voltage range: 0.75 to 1.25 × Un + Maximum power consumption (SYN 5302) 25 W / 35 VA - Measuring inputs U1, U2 : + Nominal voltage range 50 to 130 VAC + Permissible voltage range 0 to 1.3 × Un + Nominal frequency 16 2/3 / 50 / 60 Hz - Digital inputs: + Nominal voltages 24 /48 VDC	ABB	EU/G7/ OECD	1	Set	
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					+ Current consumption 6 to 8 mA - Paralleling relays: + Maximum switching voltage 250 VAC / DC + Maximum switching current, continuous 5 A AC / DC + Max. switching power DC/AC ON 1000 W / VA + Max. switching power DC/AC OFF 30 W / 30 VA - Adjusting, command and signalling relays: + Maximum switching voltage 250 VAC/DC + Maximum switching current, continuous 1.5 A AC/DC + Max. switching power DC/AC ON/OFF 50 W / 50 VA - Serial interface: for PC software "SynView" RS 232 - Measuring ranges: + Voltage U₁, U₂: 0 to 1.3 × Un; + Angle matching α: -179 to +180 DEG; + Frequency: 10 to 100 Hz; + Slip s: 0 to 50 %; + Acceleration ds/dt: 0 to 10 %/s;+ Paralleling time t ON: 0 to 1 s - Isolation: + Dielectric test IEC 60255-5: 2 kV + Impulse voltage test IEC 60255-5: 5 kV - Degrees of protection acc. to IEC 60529: + Front: IP 54; + Rear: IP 50 - Temperature ranges: + Operation (compliance with technical data) +40 to + 130 °F - Construction data: Plug-in type casing for 19" rack + Orientation: Horizontal + Table cutout W × H: 17 (29/64") × 6 (7/64")
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					+ Device profile W × H × D: 17 (27/64") × 6 (5/64") × 8 (43/64") + Front frame W × H: 17 (27/64") × 6 (5/64") × 8 (43/64")				
138	Compresor	Model No: 50R4732	- Power Source AC: 220-240V AC; 1 Pha, 50Hz - Serial No: T/MB19G1TCF0611H - Configuration No: L+5ASF - Môi chất: R22	RECH/PRES ECTION	5	PCS			
139	Compresor	Model No: SZ147A4ALB	Power Source AC: 380-400; 3 pha, VAC-50 Hz - Serial No: HM2503731216 - Môi chất: R 407 C - Max Curent: 26A - Net weight: 67 Kg - Dimension: D=243 mm; H=542,5 mm; H1= 277,8 mm; H2= 508,8 mm;	Danfoss	5	PCS			

140	Compressor	Model No: HCP120T4LC6	- Power Source AC: 380-415 VAC; 3 pha, 50 Hz - Serial No: HM2503728473 - Tech No: SRH120BE01 - Môi chất: R407 C - Maximum Continuous Current: 25 A - Net weight: 44 kg - Length [mm] : 232 mm - Diameter [mm] 184 mm - Discharge connection height [mm] 519 mm - P/N: 690305610001 - S/N: 610301831 - Model: RT455-612/380-5/8C - Power Source AC: 380 VAC; 50 Hz; 6P; 1.20A; 400 W; 850 rpm - Model: PM3115221 - Power Source AC: 1 Pha; 220 VAC; 50 W; 0.47 A; 900 rpm; CAP 3MFD/400 V	Danfoss	5	PCS	
141	Quạt giải nhiệt gián nóng	T400-06F	- Outlet 1 connection size [in]: 5/8 in - Outlet connection type: Solder, ODF - Packing format: Multi pack - PED category: Art. 4, par. 3 - Product description: Liquid line filter drier - Product group: Filter driers - Product Name: Description - Product Name: Hermetic: filter drier - REACH Candidate List substances: No - Refrigerants R1233zd(E); R134a; R22/R407C; R32; R407A; R407F... Shell volume [foz US]: 11.97 - Fluid Ounce US Shell volume [l]: 0.35 - L Solid core surface [cm2]: 183 - cm2 Solid core surface [in2]: 28.34 - in2 Solid core volume [cm3]: 128 - cm3 Solid core volume [in3]: 7.84 - in3 Temperature range [°C] [max]: 70 - °C Temperature range [°C] [min]: -40 - °C Temperature range [°F] [max]: 160 - °F Temperature range [°F] [min]: -40 - °F Type	TRANE	5	PCS	
142	Quạt giải nhiệt gián nóng	PM3115221		TRANE	5	PCS	
143	Phin lọc gas Hermetic filter drive	DML 165S-023Z5068		Danfoss	5	PCS	

			:DML Type designation: DML 165S UK RoHS compliance :Out of scope Max. Working Pressure [bar]: 46 bar Max. Working Pressure [psig]: 667 psig					
144	Compressor	Model No: DST102MA A	- Power Source AC: 220-240V AC; 1 Pha, 50Hz - HPB Hermetic motor Compressor for AC - Serial No: 9F4R0039DE16-A 00239 - Môi chất R32	LG	5	PCS		
145	Compressor	JT170G-P4Y1	- Blockoc Máy lạnh JT170G-P4Y1 - Power Source AC: 380- 415V - 50 Hz, 3 PH - Oil Type: DAPHNE OIL FVC68D - MGF.N0. 9110876 20200119 - DP-AP H 4.17 Mpa L 4.17 Mpa - SP F162 12.51 Mpa - Refrigerant: R410A	DAIKIN	5	PCS		
146	Motor gián nóng Máy lạnh	3PN07031-1B	- SINGLE PHASE AC FAN MOTOR :220- 230-240V; 50Hz; 65W; 6P - Ser N0.SQ-YFK-65-6	DAIKIN	10	PCS		
147	Motor gián nóng Máy lạnh	2072018	- DC FAN MOTOR 280V KFD-280-66-8A; 50Hz; 66W; 8P; 860 r/min	DAIKIN	5	PCS		
148	Motor gián nóng Máy lạnh	43BZWA228L4 3B (3P540166-1)	- Power Source AC:325V; 50Hz; 68W; IP24 S1	DAIKIN	5	PCS		
149	Compressor	NN40VAAMT	Refrigerant Compressor Manufacturing date 27112019 - Power source: 220-240; 50Hz - Power input: 3430 W; 50Hz - LRA: 88/90 A - Refrigerant: R410A - Oil: 1,3L - AP: 4,15 Mpa - SP: 15 Mpa	SIAM	5	PCS		

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156	Compressor	SH161A4ALC	- Power supply: 380-400VAC- 3Pha -50 Hz; 460 VAC-3Pha- 60 Hz.. - S/N: HG2503556323 - Tech no: SRH942BE01 - LR158A MAX OPER.31A Thermally protected system - lubricant: POE 160.SZ - Refrigerant: R410A	Danfoss	2	PCS	
157	Compressor	JT160G-P4Y1@K	- Power supply: 380-400VAC- 3Pha -50 Hz; - REF.OIL: DAPHNE FCV 68D - MGF.NO. 0730139221801 - DP.AP: H-4,17 MPa. L-4,17 MPa - SP: 15 MPa - Refrigerant: R410A	DAIKIN	2	PCS	
158	Compressor	2YC40AXD	- Power supply: 220-240VAC- 1Pha -50 Hz; - REF.OIL: FW68DA - MGF.NO. 10041684 - Refrigerant: R32A	DAIKIN	2	PCS	
159	Máy lạnh tủ đứng	FVA125AMVM (5.0Hp)	- Công Suất: 42700 btu/h - Nguồn Điện 1 Pha :220 - 240 V, 50 Hz - Dàn Lạnh: CS-C45FFH- Dàn Nóng :CU -C45FFH- Gas lạnh: R32 - Công Suất Làm Lạnh: định mức: 12.50 kW, 42700 btu/h - Dòng Điện: 8.40 A - Công Suất Tiêu Thụ: 4.62 kW - Kích thước ống đồng Gas (mm): 9,52/15,88 - Chiều dài ống Gas tối đa (m): 50 m - Chiều cao đường ống Gas tối đa: 30 m - Hệ số Cop: 4,58 - Dàn lạnh: - Model giàn lạnh: FVA125AMVM - Kích thước giàn lạnh (mm): 1,850 x 600 x350 - Trọng lượng giàn lạnh (Kg): 50 Kg - Giàn nóng:	DAIKIN	2	Set	

