



5310/6.910/93 /17/JB  
January 15<sup>th</sup>, 2017

FAX

FAXED  
17 JAN 2017  
BY: *Mg*

Haji Ali Haji Co WLL,,  
Attn: Mr.Sudish Vasudevan, Division Manager.

Fax: 17721822

**Subject: Equipment Approval**  
**LV Switchgear Panel (PMCC, MCC & MPDB) -- Make: Siemens, Germany**

**Name of the Project: Al Madina Al Shamaliya STP.**

This has reference to the submittals received from 9<sup>th</sup> to 12<sup>th</sup> of January 2017 & 28<sup>th</sup> December 2016, along with documents in CD for the subject items' approval.

We have reviewed the same in conjunction with following submittals with documents:

- 1) Your letter No: SGD/APPR/2016-LVP dated 21<sup>st</sup> July 2016.
- 2) Your letter No: SGD/APPR/2016-LVP/R3 dated 21<sup>st</sup> December 2016.

Based on the above submittals we have noted the following:-

- 1) *Tested power switchgear & control gear assembly, 5985A, 400/690V/6kV, 50Hz consisting of three sections with: a three phase and neutral main busbar system, a three -phase and neutral distribution busbar system, a protective busbar, one incoming circuit with ACB, and 11 outgoing circuits with MCCB. Designation SIVACON S8 // Make M/s Siemens AG, 04175 Leipzig, Germany, tested vide IEC 61439-2: Edition 2.0 2011-08, tested in laboratory IPH, Berlin and RST Rail System Testing GmbH, both DAR accredited and certified by ASTA (certificate No:18368A), is having the following combination of assembly:*
  - a) *Enclosure with busbar (SIVACON S4) from M/s Siemens AG, 04175 Leipzig, Germany, assembled with functional units, (Details as in the drawings—64008345/1051-sheet 1 submitted with test report).Also refer M/s Siemens letter No:EM LP\_EDDBH\_S4 COO\_069 dated 15<sup>th</sup> May 2016.*
  - b) *Incoming functional units – ACB x 1(from M/s O EZ s.r.o., Czech Republic, a M/s Siemens AG, Germany owned company),type 3WL1350-4EB36-4GA2-Z, 5000A, 400V, 50Hz, Ui 690V,Uimp 6kV, Icu 100kA-1s and 4P(tested vide EN 60947-1 & 2). Refer drawing – Prototype considered for verification and M/s Siemens letter No: EM LP\_EWA\_030 dated 8<sup>th</sup> December 2016.*
  - c) *Outgoing functional units MCCB,(from M/s O EZ s.r.o., Czech Republic, a M/s Siemens AG, Germany owned company), 3VL160(63A),3VL250(200A),3VL400(315A) & 3VL630(630A) types, 63A/200A/315A & 630A, 400V, 50Hz, Ui 690V,Uimp 6kV,65kA-1s and 3P(tested vide IEC 60947-1,2&5).*

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- d) Confirmation regarding country of origin of Functional units. Refer drawing – Prototype considered for verification and M/s Siemens letter No: EM LP\_EWA\_030 dated 8th December 2016. Vide this letter M/s Siemens are confirmed the use of **3VA type MCCB**, which is having many advanced features in place of 3VL type MCCBs (Refer M/s Siemens letter Node LP\_EDD\_PREQU\_033 dated 28<sup>th</sup> December 2016). This is acceptable.
- e) In order to provide Form4 construction of panel, M/s Siemens confirmed to use the *same design of ACB incomer panel as SIVACON S8 for SIVACON S4 for PMCC & MCC panels and also for the MCCB incomer for MPDB panels*. (Refer M/s Siemens letter No: EM LP\_EDD\_PREQU\_033 dated 28<sup>th</sup> December 2016 and letter No: EM LP\_EDD\_PREQU\_035 dated 10<sup>th</sup> January 2017). This is acceptable.
- 2) DNV.GL Management System Certificate, audited and certified, valid ISO certificates issued to M/s Siemens AG, 04175 Leipzig, Germany for Quality Management System of standard for Development, Production and Sales of M.V.Switchgear, CBs & Components upto 52kV, LV Switchboards & Busbar Systems; Planning & Execution of Turnkey Power Supply Systems.
- 3) IQ Net Certificate, certified, valid ISO 9001:2008 certificate issued to M/s O EZ s.r.o, Czech Republic for Quality Management System of standard for Development & Production of LV Circuit Breakers, Fuses, Tools, Moulds, Special purpose machines & devices.
- 4) Bureau Veritas Certificate, certified, valid ISO 9001:2008 certificate issued to M/s Haji Ali Haji Co., W.L.L., Bahrain for Quality Management for Design, manufacture & assembly of Low Voltage Switchgear Panels and after sales service of Home Appliances.
- 5) M/s Siemens letter No: EM LP\_EDDBH\_S4\_068 dated 15<sup>th</sup> May 2016, **authorized** M/s Haji Ali Haji Co., W.L.L., Bahrain, as their authorized panel assembler to assemble SIVACON S4 LV Switchboards.

Hence the request to manufacture or assemble the same or similar combination of subject items, for the subject Project by M/s Haji Ali Haji Co., W.L.L., Bahrain, meeting fully with all the requirements and instructions specified and provided by the **original equipment manufacturer** M/s Siemens, Leipzig, Germany, is considered as approved.

However, it is the responsibility of the Consultant to ensure the following:

- (1) The ACB/MCCB panel shall be compatible with the regulations and the specification of EDD.
- (2) The ACB/MCCB panel have been fully tested in accordance to EDD description S-4218A with latest Amd and S3015C with latest Amd.
- (3) The actual delivered and installed ACB/MCCB panel should be the same as prior approved by Electricity Distribution Directorate.

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- (4) The actual delivered and installed ACB/MCCB panel should be the same as prior approved by Electricity Distribution Directorate.
- (5) After the completion of the work, the Consultant shall submit a letter of undertaking that the design of the ACB/MCCB panel has been tested and meet with all the stipulated requirements.
- (6) The Consultant/Contractor shall then submit to the Electricity Distribution Directorate the completion certificate duly certified by the Consultant.
- (7) The Consultant/Contractor shall liaise with EDD at all stages, before commissioning the said ACB/MCCB panel.
- (8) The responsibility for the performances of the subject equipment rests with the Consultant/Contractor. This approval does not entitle the developer of the project to hold Electricity Distribution Directorate responsible in the event of non-performance of the ACB/MCCB panel.

Yours sincerely,

**Ebrahim Hameed Al Mubarak,**  
**Chief, Planning & Materials**

JB/jb- PM (2937/3255)  
CC: 1) MAC Members-please see sharing folder & (2) File  
N.B. Please send your reply to Planning & Materials Fax No. 17364926





5340/6.910/954/19/jb/190204  
June 9<sup>th</sup>, 2019

FAX

Haji Ali Haji Co WLL,,  
Attn: Mr.Sudish Vasudevan, Divisional Manager.

Fax: 17721822

**Subject: Equipment Approval**  
**400V LV Switchgear Panel (2500A) -- Make: Siemens AG, Germany**

**Name of the Project: SA'ADA Development at Muharraq .**

This has reference to the submittal No: SGD/APPR/2019-LVP/R0 dated 19<sup>th</sup> May 2019, along with documents for the subject item approval. We have reviewed the same and noted the following:-

Refer to VDE test report No:224367-TL3-3 for the SIVACON S4 - LV Power Switch Gear & Controlgear assembly. Accordingly as an original equipment manufacturer(OEM), M/s Siemens AG, Germany, have manufactured LV Switchgear Panel Board *enclosure with bus bar* and further assembled with following functional units.

- i. *Air Circuit Breaker from manufacturer M/s Siemens AG, Germany (with type 3WL type).*
- ii. *Moulded Case Circuit Breakers from manufacturer M/s Siemens AG, Germany (with types 3VL & 3VA).*
- iii. *Fuse Switch Disconnectors from manufacturer M/s Siemens AG, Germany (with type 3NP).*
- iv. *In-line Fuse Switch Disconnectors from manufacturer M/s Siemens AG, Germany (with type 3NJ).*

Hence the request to manufacture or assemble the same or similar combination (suitability to substitute functional units based on better quality than the tested items, shall be to IEC 61439 guidelines) of above items, for the subject Project, by M/s Haji Ali Haji Co., W.L.L., Bahrain, meeting fully with all the requirements and instructions specified and provided by the **OEM** M/s Siemens AG, Germany, is considered as approved.

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However, it is the responsibility of the Consultant to ensure the following:

- 1) The 400V LVpanel(2500A MDB) shall be compatible with the regulations and the specification of EDD.
- 2) The 400V LVpanel(2500A MDB) has been fully tested in accordance to EDD description S-4218A with latest Amendment. and CTs shall be with class 0.5accuracy.
- 3) The actual delivered and installed 400V LVpanel(2500A MDB) panel should be the same as prior approved by Electricity Distribution Directorate.
- 4) After the completion of the work, the Consultant shall submit a letter of undertaking that the design of the 400V LVpanel(2500A MDB) has been tested and meet with all the stipulated requirements.
- 5) The Consultant/Contractor shall then submit to the Electricity Distribution Directorate the completion certificate duly certified by the Consultant.
- 6) The Consultant/Contractor shall liaise with EDD at all stages, before commissioning the said 400V LVpanel(2500A MDB).
- 7) The responsibility for the performances of the subject equipment rests with the Consultant/Contractor. This approval does not entitle the developer of the project to hold Electricity Distribution Directorate responsible in the event of non-performance of the 400V LVpanel(2500A MDB).

Regards,

**Khalid Jassim Mohamed Sowayed**  
**Chief, Engineering Services**

JB/jb- ES(1088)

CC: 1) MAC Members-please see sharing folder ,(2) Abdulla Hameed & (3) File