



केन्द्रीय मुहर विभाग - III

हमारा संदर्भ- केन्द्रीय मुहर विभाग-३/१६: भा.मा. १७०१८ (भाग १) १२ जून २०२३

विषय: अनुपालन हेतु गाइडलाइन

सभी शाखा कार्यालयों से आग्रह है कि संलग्न गाइडलाइन का अनुपालन तत्काल प्रभाव से सुनिश्चित करें।

(राकेश कुमार)
वैज्ञानिक 'डी' (के मु वि III)

प्रमुख (के मु वि III)

सभी क्षेत्रीय/शाखा कार्यालय

CENTRAL MARKS DEPARTMENT-III

Our Ref: CMD-3/16: IS 17018 (Part 1)

12 June 2023

Subject: Guidelines for implementation of revised Indian Standard IS 17018 (Part 1): 2022- Solar Photovoltaic water Pumping Systems- Centrifugal Pumps

This has reference to the subject mentioned above.

BOs may kindly ensure implementation of the attached guidelines with immediate effect.

(Rakesh Kumar)
Scientist D (CMD III)

Head (CMD - III)

Circulated to: All ROs/BOs

CENTRAL MARKS DEPARTMENT III

Our Ref: CMD III/16: IS 17018 (Part 1)

12 June 2023

Subject: Guidelines for implementation of revised Indian Standard IS 17018 (Part 1): 2022- Solar Photovoltaic water Pumping Systems- Centrifugal Pumps

1. IS 17018 (Part 1): 2018 has been revised and published as IS 17018 (Part 1): 2022. **The last date for implementation of the revised Standard is 30 August 2023.**
2. All BOs shall inform the Applicants and Licensees under their jurisdiction about implementation of the revised Standard **within a week of issuance of these guidelines.**
3. The significant changes brought through this revision as listed in the Table is given for the purpose of general guidance. BOs shall ensure that the product conforms to all the requirements, as applicable, as per the revised Standard.

Clause	Changes
1	The restriction regarding usage of SPV Pumps for carrying clear cold water has been removed. Range has been specified for the pumps covered in the scope of standard.
3.5	A new clause has been added defining 'Static Suction Lift' and subsequent clauses renumbered.
3.6	Average daily solar radiation has been changed from 6.5 kWh/m ² to 7.15 kWh/m ² .
3.8	SPV Pump Controller has been defined in place of Solar Photovoltaic Converter.
4.2.3	Provision for remote monitoring unit has been made mandatory and basic functions of same have been specified.
4.3.1.	Range of PV array minimum capacity has been modified. Minimum Power Output of Individual PV modules has been increased. Compulsion of using mono/multi crystalline solar cells has been removed.
4.3.2	Time limit of 1 year has been specified for STC performance data supplied with modules.
4.3.4	Minimum module efficiency has been increased to 16 percent.
4.3.5	A new clause has been added for modules to qualify as per IS 17210 (Part1).
4.3.6	A new clause has been added for Salt Mist Corrosion Test.
4.3.7	Name Plate of PV module shall conform to IS 14286/IEC 61215.
4.3.9	A new clause has been added for variation in overall SPV array wattage.
4.3.10	A new clause has been added for warranty of PV modules.
4.4.1	Pump sets to be used have been restricted to Surface Mounted/Submersible Pumpsets.

	PMSM/BLDC,SRM motors have been permitted.
4.4.2	A new clause has been added describing features of Motor Pump set.
4.4.3	Material of construction has been modified to IS 6911 and IS 3444. A new clause has been added for guarantee of pumpset.
4.4.4	A new clause has been added for suction/delivery pipe requirements.
4.5	A new clause has been added for Module Mounting Structures (MMS) and Tracking System.
4.6	SPV controller overall efficiency requirement has been deleted.
4.6.2	IP protection level for SPV Pump Controller has been increased from IP 54 to IP 65.
4.6.3	Additional protection against Under Voltage and Surge Protection To Arrest High Current Stage has been added.
4.6.4	DC switch to conform as per IS/IEC 60947 Part 3.
4.6.5	Cables as per IS 9968 (Part 1) have also been permitted.
4.7.1	Requirement for Separate Earthing has been added for Controller, Pump and SPV array.
4.7.4	A new clause has been added for lightning arrestor.
5.2	Shut off head has been increased for 30m, 70m and 100m dynamic head DC motor pumpsets.
5.3	Water Output has been specified for ac induction motor pumpsets.
6.2	IS 17429 has been referred for Testing of SPV water pumping system.
7.2	Guarantee period has been increased to 60 months.
7.3	A new clause has been added for availability of spares.
8.1.1	Capacity Range has been removed from Marking on pumpset.
Note under 8.1.1	Marking specified for Module Mounting Structure.
9	Operation and Maintenance Manual to be provided with pumpset in local language as well as English.
Annex B	Specification for Module Mounting Structure has been added.
Annex C	Indicative performance specifications for shallow and deep well SPV pumping system with dc motor pumpset have been added.
Annex D	Indicative performance specifications for shallow and deep well SPV pumping system with ac motor pumpset have been added.
12 (Earlier version)	‘Permissible Inaccuracies in Measurements’ (Removed)
9 (Earlier version)	‘Ratings’ (Removed)
4 (Earlier version)	‘Units’ (Removed)
3.7 (Earlier version)	‘Clear Cold Water’ (Removed)

4. Consequent upon revision of the Standard, existing Product Manual has been revised as Doc: PM/ IS 17018 (Part 1)/ 2/ June 2023. In this revision, changes have been made in requirements of raw material, Possible tests in a day, List of test equipment, and SIT in view of the changes brought out in the revised Standard. Levels of Control of performance test has also been changed in view of the representation received from manufacturers.
5. The guidelines for implementation of the revised Standard is given below:

A. LICENSEES:

- (i) All Licensees shall implement the revised Standard by 30 August 2023. Any difficulty in implementation shall be brought to the notice of CMD III at the earliest but in any case at least 30 days before the last date of implementation. BOs shall ensure that no Licences are under operation Standard without Revised Standard after 30 August 2023. The status of implementation of the revised Standard shall be confirmed by Head (BO) to CMD-III within two weeks of the last date of concurrent running.
- (ii) In order to establish conformity to modified requirements, Licensees shall submit evidence of usage of BIS Certified raw material and components (Steel as per IS 6911, Cables as per IS 9968-1, if applicable, PV Modules as per IS 14286, d.c. circuit breaker as per IS/IEC 60947-3 or d.c. switch as per IS/IEC 60947-3, as required). Licensee shall also submit test certificates of raw material/components indicating conformity to revised Standard (Salt Mist corrosion test, if applicable; Efficiency of module etc.). Test report (in-house or from BIS recognized OSL) of product indicating conformity of product to revised Standard shall also be submitted by Licensee.
- (iii) Verification of implementation of the revised Standard, wherever required, may be done during the next visit **which may normally be completed within one month from the date of submission of compliance by licensee or latest by three months from the last date of concurrent running.**
- (iv) If the Licensee fails to complete all actions by 30 August 2023 it shall be dealt with as per the prevailing guidelines.

B. APPLICATIONS FOR GRANT OF LICENCE:

- (i) Existing Applications where Sample has been submitted in the Laboratory/Test Report has been issued by the Laboratory may be processed as per old Standard. However, if the Applicant is desirous of considering the application as per the revised Standard, a declaration may be obtained from the Applicant to that effect and the Application may be processed accordingly. An undertaking shall also be obtained from such Applicants that if the sample fails while considering the provisions of the revised Standard, Licence will not be granted as per the old version.
- (ii) Applications which are recorded henceforth may be processed as per old or revised Standard. Processing of Applications as per the old Standard shall be permitted only up to 30 August 2023 and for such cases Applicant shall give a declaration that they will implement the revised Standard by 30 August 2023.

(iii) Beyond 30 August 2023 no Licence shall be granted without consideration of the revised Standard.

C. CHANGE IN SCOPE OF LICENCE:

(i) For change in scope of licence, the relevant provisions as given above for Applicants shall apply.

(ii) However, processing of such applications for change in scope of licence as per old Standard shall be permitted only upto the date of implementation of the revision by the licensee or up to 30 August 2023 whichever is earlier.

6. The above guidelines come into force with immediate effect.

(Rakesh Kumar)
Scientist D

Head (CMD III)
DDG (Certification)