



# ELECTRICAL POWER RESEARCH LABORATORY

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)  
(Recognized by Bureau of Indian Standards (BIS), Govt. of India)

Plot No.25, Aatmiya Brookfieldz Ind. Park, At. Untiya (Kajapur) Village, Near Por Village, Vadodara - 391 240 Gujarat, India.  
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TC-11921

## TEST REPORT

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Name &amp; Address Of Customer</b><br><br><b>M/s. PVJ POWER SOLUTIONS</b><br><br>Vill. Nasrali, P.O. Dabhota,<br>Nalagarh, Solan - 174101,<br>Himachal Pradesh,<br>India                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                         | <b>Report No.:</b> EPRL/TR/2024/167<br><b>ULR No. :</b> TC119212400000255F<br><b>Date :</b> 22-08-2024<br><b>Customer's Ref. No.:</b> PVJ/24-25/250033/01<br><b>Dated:</b> 03-08-2024<br><b>Date of sample receipt :</b> 13-08-2024<br><b>Condition on Receipt :</b> GOOD<br><b>Location of Testing :</b> EPRL Lab, Vadodara<br><b>Date Of Testing:</b> 14-08-2024 to 20-08-2024 |  |
| <b>Sample Descriptions</b><br><br>Name : Distribution Transformer<br>Make : M/s. PVJ POWER SOLUTIONS<br><br>Standard : IS 1180 (Part 1): 2014 with all amendments<br>Rating : 2500 kVA<br>Voltage : 33000 / 433 V<br>Phases : 3<br>E.E.L.: 3 (as per amendment 4)<br><br><b>Further details as per page no. 2.</b>                                                                                                                                                                  |                                                                                                                                                                                                                         | <b>Sample Identification</b><br><br>EPRL Sample Code No.: EPRL/2024/146<br>Serial No. PVJ-250033L3-01<br>Sample Code No.: 804207/2024/SS/1<br>BIS QR Code No.: 100000785392                                                                                                                                                                                                      |  |
| <b>Test details</b><br>As per page no. 3                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                         | <b>Test Specification</b><br>As per page no. 3                                                                                                                                                                                                                                                                                                                                   |  |
| <b>Photographs:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | As Per Page no. 25                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <b>Drawing No.:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1) PVJ-250033-RD-01-REV.0<br>2) PVJ-250033-GA-02-REV.0                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <b>Remarks:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1) The transformer <b>conforms</b> to the requirements of above mentioned standard for the test nos.2, 5, 6, 8, 9, 10, 11, 12, 13 and 14.<br>2) The observation of the test nos. 1, 3, 4 and 7 are as per page 4 to 24. |                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <div><div><br/><b>PREPARED BY</b></div><div><br/><b>REVIEWED BY</b><br/>S.B. Diwan</div><div><br/><b>AUTHORIZED BY</b><br/>S.B. Diwan</div></div>                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                  |  |
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TC-11921

Report No.: EPRL/TR/2024/167

Date : 22-08-2024

ULR No. : TC119212400000255F

| Sr No.                                        | TECHNICAL SPECIFICATION OF SAMPLE ASSIGNED BY CUSTOMER |                                              |                    |
|-----------------------------------------------|--------------------------------------------------------|----------------------------------------------|--------------------|
| 1                                             | Name of Manufacturer                                   | : M/s. PVJ POWER SOLUTIONS                   |                    |
| 2                                             | Test Sample                                            | : Distribution Transformer (CRGO core)       |                    |
| 3                                             | Standard No.                                           | : IS 1180 (Part 1): 2014 with all amendments |                    |
| 4                                             | Serial No.                                             | : PVJ-250033L3-01                            |                    |
| 5                                             | Energy Efficiency Level                                | : 3 (as per amendment 4)                     |                    |
| 6                                             | Type                                                   | : Non sealed                                 |                    |
| 7                                             | Rating                                                 | : 2500 kVA                                   |                    |
| 8                                             | Rated voltage at no load H.V./L.V.                     | : 33000 / 433 V                              |                    |
| 9                                             | Rated current at H.V./L.V.                             | : 43.74 / 3333.43 A                          |                    |
| 10                                            | Number of phases                                       | : 3                                          |                    |
| 11                                            | Connection H.V./L.V.                                   | : Delta / Star                               |                    |
| 12                                            | Frequency                                              | : 50 Hz                                      |                    |
| 13                                            | Type of cooling                                        | : ONAN                                       |                    |
| 14                                            | Temperature rise of oil/Winding                        | : 40/45 °C                                   |                    |
| 15                                            | Percentage Impedance                                   | : 6.25%                                      |                    |
| 16                                            | Winding Material                                       | : Copper                                     |                    |
| 17                                            | Vector group                                           | : Dyn11                                      |                    |
| 18                                            | Year of manufacture                                    | : 2024                                       |                    |
| 19                                            | B.I.L. of H.V.                                         | : 170 kVp / 70 kV rms                        |                    |
| 20                                            | B.I.L. of L.V.                                         | : --- / 3 kV rms                             |                    |
| 21                                            | Max. Total Losses at 50% load                          | : 6084.5 W                                   |                    |
| 22                                            | Max. Total Losses at 100% load                         | : 17795.55 W                                 |                    |
| 23                                            | Tapping Details                                        | :                                            |                    |
|                                               | Tap no.                                                | HV Winding (Volts)                           | LV Winding (Volts) |
|                                               | 1                                                      | 36300                                        | 433                |
|                                               | 2                                                      | 35475                                        | 433                |
|                                               | 3                                                      | 34650                                        | 433                |
|                                               | 4                                                      | 33825                                        | 433                |
|                                               | 5                                                      | 33000                                        | 433                |
|                                               | 6                                                      | 32175                                        | 433                |
|                                               | 7                                                      | 31350                                        | 433                |
| <div>PREPARED BY</div> <div>REVIEWED BY</div> |                                                        |                                              |                    |