

**JAIPUR VIDYUT VITARAN NIGAM LIMITED
OFFICE OF THE SUPERINTENDING ENGINEER (PROC)
OLD POWER HOUSE PREMISES, NEAR RAM MANDIR, BANIPARK, JAIPUR-6**

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**SPECIFICATION FOR SUPPLY OF P.G.CLAMP FOR PANTHER, DOG, WEASEL ,
RABBIT CONDUCTOR T-CLAMP FOR PANTHER CONDUCTOR AGAINST TENDER
NOTICE NO. JPD/SE(Proc)/SPO.III/TN-4337**

Last Date of receipt of tenders	26.04.2011 upto 2:30 PM
Date of opening of tenders	26.04.2011 at 3:00 PM
Cost of Specification	Rs. 2500.00 (Rs. Two thousand Five Hundred only)
Validity	120 days from the next date of opening of bid
Earnest Money	Rs. 1,50,000.00 (Rs. One lac Fifty Thousand only) / Exemption Certificate / Vendor Registration Of Class " D " Category or above.
Tendered Quantity	PG Clamp for Panther Conductor-5700 Nos
	PG Clamp for Dog Conductor-29963 Nos
	PG Clamp for Rabbit Conductor-28981 Nos
	PG Clamp for Weasel Conductor-3450 Nos
	T Clamp for Panther Conductor-150 Nos

Note : The bidders in their own interest are advised to go through the complete specification carefully.

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Note:- The bidder, in their own interest, are requested to read very carefully Section-I (Instruction to bidders), Section-II (General Condition of Contract) & Section-III (Technical Specification) before filling the bid. The Bid documents can be downloaded from JVVNL website www.jaipurdiscom.in .No hard copy of the bidding documents will be provided to the bidders through this office. In case of any discrepancy found in bidding documents downloaded from the website and appended with the bid (as a bid document) and original copy of such document available in the office of Superintending Engineer (Proc.), Jaipur Discom, Jaipur then the copy available with Superintending Engineer (Proc.), Jaipur Discom, Jaipur will be considered as final document for all purpose. The cost of Bid document as published in NIT shall be furnished along with downloaded bid document in the manner prescribed in bid document

SCHEDULE-III**TECHNICAL SPECIFICATION OF P.G. CLAMPS FOR DOG, PANTHER, RABBIT & WEASEL CONDUCTOR AND T-CLAMP FOR PANTHER CONDUCTOR AGAINST TN-4337.****3.01 SCOPE**

This specification covers the manufacture, testing before despatch and delivery at our Stores/ Site of P.G. Clamps for ACSR Panther, Dog, Rabbit, weasel Conductor and T-clamp for Panther Conductor as detailed hereunder:-

3.02 SCHEDULE OF REQUIREMENT:-

The approximate requirement of P.G. Clamps is as under:-

- a) For Panther Conductor - 5700 Nos.
- b) For Dog Conductor - 29963 Nos.
- c) For Rabbit Conductor - 28981 Nos.
- d) For Weasel Conductor - 3450 Nos.
- e) T Clamp for Panther Conductor - 150 Nos.

The above requirement is tentative which can be increased/decreased at the time of placing of order.

3.03 MATERIAL:-

All material used shall conform to the relevant ISS. All aluminum and aluminum alloy used in the manufacture of the connector(s) shall conform to designation `A6' of IS:617 (1975) Latest amended and IS:1367 (latest amended). Non ferrous alloy bolts, nuts and spring washers shall conform to the relevant Standards.

The material used in the manufacture of clamps shall be Aluminum alloy 4600 of IS:617-1994 as amended and shall be gravity die casting process only.

Steel Bolts and Nuts shall conform to IS:1368-1992 & IS:1367/1979-80 (with latest amendment, if any)

All ferrous metal parts intended for outdoor use except those made of stainless steel shall be protected by hot dip galvanizing in accordance with IS:2633-1986.

The temperature rise of power connectors above a reference ambient temperature of 40 Deg. C when carrying rated current as above shall not exceed 45 Deg. C to fulfill the requirement of Cl.6 IS:5561(1970).

3.04 GENERAL REQUIREMENTS:-

The power connectors shall be smooth and free from cavities, blow-holes and other defects and such adverse effects like sharp radii of curvature, ridges & excrescence which might lead to localized pressure or damage to conductor in service. Power connectors shall be so designed and proportioned that they are capable of safely withstanding stresses to which they may be subjected (including these due to short circuit and climatic conditions) and that the effect of vibrations, both on the conductor and the connector itself are minimized. Sufficient contact pressure should be maintained at the joint by the provision of the required number of bolts or other fixing arrangements. But the contact pressure should be evenly distributed by the use of pressure plates, washers or suitable saddles of adequate area & thickness.

3.05 LIMITS OF TEMPERATURE : The limits of temperature rise specified are based on the following reference ambient temperatures:-

- a) Maximum ambient air temp : 50 Deg. C.
- b) Maximum daily average ambient temp : 32.5 Deg. C.
- c) Maximum yearly average ambient temp. : 32 Deg. C.

The temperature rise of power connectors above a reference ambient temperature of 40 Deg. C when carrying rated current as above shall not exceed 45 Deg. C to fulfill the requirement of Cl.6 IS:5561(1970).

3.06 DIMENSIONAL REQUIREMENT FOR P.G.CLAMPS & T-CLAMPS:-

s.no	PARTICULARS	PG CLAMPS FOR					T-CLAMP FOR PANTHER CONDUCTOR
		ACSR PANTHER TO PANTHER	ACSR DOG TO DOG		ACSR Rabbit to Rabbit	ACSR WEASEL TO WEASEL	
			TYPE 'A'	TYPE 'B'			
a.) CONDUCTOR:-							
1	No. of strands in Conductor	Al. 30/ 3.00 mm Steel 7/ 3.00 mm	Al. 6/ 4.72 mm Steel 7/ 1.57 mm	Al. 6/ 4.72 mm Steel 7/ 1.57 mm	Al.6/ 3.35 mm Steel 1/ 3.35 mm	Al. 6/ 2.59 mm Steel 1/ 2.59 mm	Al. 30/ 3.00 mm Steel 7/ 3.00 mm
2.	Conductor dia	21.0mm	14.15mm	14.15mm	10.05mm	7.77mm	21.0 mm
b.)CLAMPS							
1	Length (Min.)	135mm	125mm	90mm	75mm	75mm	80 mm
2	Thickness	10 mm	10mm	10mm	8mm	8mm	

	of Metallic Parts (Min.)						10mm
s.no	PARTICULARS	PG CLAMP FOR					T-CLAMP
		ACSR PANTHER TO PANTHER	ACSR DOG TO DOG		ACSR Rabbit to Rabbit	ACSR WEASEL TO WEASEL	FOR PANTHER CONDUCTOR
			TYPE A	TYPE B			
3.	No. of Bolts along with lock nuts plain washer and spring washers (Min.)	3	3	2	2	2	12
4.	Size of Bolts Dia X Length (Min.)	12mm x 60mm	12mm x 50mm	12mm x 50mm	8mm x 35mm	8mm x 35mm	10mmx 65mm
5.	Short circuit level for 1 Sec.	25 kA	16 kA	16 kA	12.5 kA	12.5 kA	31.5KA
6.	Rated current Amps.	630	400	400	200	160	800

Note:- Bidders are requested to quote alternative prices for P.G. Clamps suitable for ACSR Dog to Dog for the Type 'A' & Type 'B'.

3.07 TYPE TESTS:-

a) The bidder shall furnish valid and authenticated type test certificate from a Govt. approved/ a Govt. recognized/ NABL accredited laboratory/ ILAC i.e. International Laboratory Accredited laboratory / ILAC i.e International Laboratory Accreditation Corporation (In case of foreign laboratory) of similar rating and design of tendered material. Such type test certificates should not be older than three years as on the date of bid opening. For this purpose date of conducting type tests will be considered.

b) The type test certificates by in house laboratory of bidding firm even if it is a Govt approved/ Govt recognized/ NABL accredited Laboratory / ILAC accredited, shall not

be accepted, in case of their own bid. This will not apply if bidding firm is Govt. Company/ Public Sector Undertaking.

c) The bidder should furnish documentary evidence in support of the laboratory whose type test have been furnished, that the said laboratory is a Govt/ a Govt. approved/ a Govt. recognized/ NABL accredited laboratory/ ILAC accredited (in case of foreign laboratory)

d) The type test certificates shall be furnished either in original or duly attested by notary.

e) The bids of only those bidders shall be considered to be meeting the type test criteria who furnishes complete type test certificates with the bid as per above provision.

f) However, in the following cases the Bidder is not in a position to furnish Type Test Certificate as mentioned above, the bid of the bidder may be considered meeting the type test criteria if the bidder furnishes an undertaking stating that valid type test certificate from a Govt. approved / Govt. recognized / NABL Accredited laboratory / ILAC Accredited laboratory shall be furnished from first lot received in Nigam store (without asking any delivery extension) along with bank guarantee with the technical bid from a Nationalized / Scheduled Bank in prescribed proforma at Schedule-III C or DD / Pay Order amounting to **Rs. 1,50,000/- (One Lac fifty Thousand Only)** . The initial validity of bank guarantee shall be nine months with claim period of three months in addition

- i) Where a new Rajasthan based firm is participating & is technically competent.
- ii) Where one or more type test(s) is/ are older than 3 years.
- iii) Where Rajasthan/out side Rajasthan firm furnishes requisite type test report of higher rating material.

e) Following type test shall be conducted on Clamps :-

- a) Tensile test**
- b) Temperature test.**
- c) Resistance test.**
- d) Dimensional test.**
- e) Galvanizing test**
- f) Short circuit test**

The short circuit test shall be accompanied with the detailed dimensional drawing duly signed by the testing agency.

3.08 INSPECTION AND TESTING

i) The material shall be tested and inspected by an authorized inspecting officer of the Nigam before despatch. Samples shall be drawn for inspection/ testing as per provisions of relevant ISS/Purchase Order. The purchaser reserves the right to get the material tested in any testing laboratory before despatch.

ii) The suppliers should satisfy themselves that the stores are in accordance with the terms of the contract and fully confirm to required specifications by carrying out a thorough pre-inspection of each quota before tending the same for inspecting to the inspecting officer nominated by the purchaser. Such pre-inspection on the part of the suppliers would minimize the chances of rejection in inspection. The following shall constitute Acceptance Tests:-

- i) Tensile Test.
- ii) Resistance Test.
- iii) Dimensional Check.
- iv) Galvanizing Test, where applicable.

In the event of order temperature rise test shall be carried out once on one Clamp of each type from the first offered lot in the presence of Purchaser's representative without extra charges.

The following shall constitute Routine Tests:-

- i) Visual inspection.
- ii) Dimensional check.

3.9 TYPE TEST ON SAMPLES SELECTED FROM MATERIAL RECEIVED IN STORES FROM 1st OFFERED LOT (Applicable to Successful bidders, who have not furnished valid Type Test(s) with bid, but furnished B.G. in lieu of Type Test(s))

The first lot offered shall not be less than 10 % of the ordered qty.

One sample of each type of Clamps from the 1st Lot received in purchaser's store shall be selected and sealed for getting it type tested at any Govt. approved/ Govt. recognized/ NABL accredited laboratory/ ILAC i.e. International Laboratory Accredited laboratory / ILAC i.e International Laboratory Accrediation Cooperation (In case of foreign laboratory). The transportation charges of sample(s) from store to test house shall be borne by NIGAM, whereas the charges incurred towards type test of the material at test house shall be borne by the Supplier. The testing charges should be remitted through D.D. in favour the Test House by the supplier with the 1st inspection offer. The name of test house shall be intimated to successful bidder after issue of Purchase order.

At the option of the purchaser, the material received in the stores may be utilized in the field after receipt of successful test reports from CTL, Jaipur for the mandatory test checking on the samples selected from the material received at stores against first lot and subsequent lot(s) in anticipation of successful type test report(s).

A) In case sample(s) from first lot fails in type tests then:

- i) Supplier shall have to replace the full quantity of the respective inspected lot supplied to various stores which is lying unused.

ii) For the quantity already utilized against the order in field, a deduction of 30% (thirty percent) of F.O.R. destination price of the material supplied shall be made.

iii) Sample(s) from next lot shall be selected again for type test . All test charges incurred towards type test of the material for second time shall be borne by the Supplier for which the testing charges should be remitted through D.D. in favour of the Test House by the supplier with the 2nd inspection offer.

B) In case sample again fails in the type test then:

i) The quantity supplied/received in stores and lying unused in stores shall stand rejected and shall be lifted back by the supplier.

ii) For the quantity already utilized against the order in field, a deduction of 30% (thirty percent) of F.O.R. destination price of the material supplied shall be made.

iii) Further supplies shall not be accepted and order shall stand cancelled .

The various type tests as per relevant standards shall be conducted on each type of Isolator.

3.10 TEST CHECKING OF MATERIAL AT STORES:-

The material received in the Stores of the Nigam shall be subjected to the test checking at Stores before final acceptance of the material. The procedure for the same shall be as under:-

A) Sampling:-

One sample out of each sub lot/ lot of 1,000 Nos. or part thereof from each inspected lot of each type of clamp received at Stores shall be selected for test checking of material & shall be got tested. The selection of sample from the material received at stores shall be done as soon as material is received in stores without the presence of the representative of the supplier. However, testing of sample(s) at CTL shall be carried out in the presence of representative of the supplier after identification / confirmation by him that sample so selected belongs to them.

B) Tests:-

The following tests shall be carried out on the above items:-

- a. Visual Examination, Verification of Dimension, weight and marking as per ISS/ Specification.
- b. Tensile Test

- c. Resistance Test
- d. Galvanizing test

Testing of the material shall be got done at the test laboratory of the NIGAM i.e. at CTL in the presence of the representative of the supplier.

For witnessing of testing, clear 7 days notice shall be given to the supplier by fax / speed post stating date, time & place where the test is to be conducted. In case the supplier do not attend for witnessing the testing, the testing shall be proceeded and completed and action be taken as per the contract.

The Officer Incharge of Central Testing Lab (CTL) Jaipur shall send copies of test reports to the purchaser, consignees and the supplier.

C) CRITERIA FOR ACCEPTANCE

- a) Visual Examination, Verification of Dimension, weight and marking:
As per ISS/ Specification
- b) Tensile Test AND
- c) Resistance Test:-

In case of failure of sample in Tensile Test & Resistance test, the material contained in the lot/ sub-lot to which the sample belongs shall be rejected. The rejected material shall have to be replaced by the supplier free of cost.

d) Galvanizing Test:

i) The sample(s) shall be first tested for (n-2) number of dips where(n) is specified number of dips in the contract. If the sample(s) does not pass the uniformity of Galvanization Test for (n-2) dips, the material shall be rejected and the material relating to relevant lot/ sub-lot to which sample(s) pertains shall have to be replaced by the supplier free of cost.

ii) If the sample has passed the uniformity of Galvanization Test for (n-2) dips, then it shall be tested for (n-1) dips. If the sample has not passed the uniformity of Galvanization Test with (n-1) dips, then material pertaining to relevant lot/ sub-lot shall be accepted with a deduction @ 10% of cost of material.

iii) If the sample has passed the uniformity of Galvanization Test with (n-1) dips, then sample shall be tested for last one dip of one minute to complete the test for `n` dips. If the sample does not pass the uniformity of Galvanization Test with `n` dips, then the material pertaining to relevant lot/sub-lot shall be accepted with a deduction @ 5% of cost of material.

D) TEST CHARGES :

All test charges incurred towards test checking of the material received in our stores shall be borne by the NIGAM except that of personal expenses of the representative of the supplier for witnessing the tests.

E) PAYMENT :

The Payment shall be governed in accordance with the clause No. 1.42 of GCC with the following modifications :-

A) If bidder have submitted valid type test reports with bid:

The 100% payment shall be released after receipt of successful test reports from CTL for the mandatory test checking on the samples selected from the material received at stores against first lot and subsequent lot(s) in anticipation of successful type test reports.

B) If bidder have not submitted valid type test reports with bid:

i) The 70% payment shall be released after receipt of successful test reports from CTL for the mandatory test checking on the samples selected from the material received at stores against first lot and subsequent lot(s) in anticipation of successful type test reports.

ii) The balance 30% payment shall be released after receipt of successful type test reports on the samples selected from the material received in the stores.

C) The due dates for payment shall be considered from the date of submission of the bills along with receipted challans to Sr. Accounts Officer (CPC) of respective Discoms.

3.11 MARKING

The items to be supplied shall be indelibly marked with suitable marks so as to identify the same. The Clamps shall be marked with 'Rated Normal Current' and name of the 'Conductor' for which the same is suitable viz. Panther to Panther, Dog to Dog, Rabbit to Rabbit and weasel to Weasel.

3.12 PACKING

You shall pack the material in the suitable double gunny bag or double HDPE bags so that the material may not be damaged in the transit

3.13 GUARANTEED TECHNICAL & OTHER PARTICULARS.

The tenderer shall furnish complete guaranteed technical particulars and other particulars of material offered by him in schedule-V.(A), V(B) and V(C)

3.14 DRAWING :

The successful bidder will submit the full dimensional drawings on A-3 size paper in triplicate for our approval before commencement of supply. If the successful bidder manufacture the equipment without obtaining approval of drawing, the purchaser will not be responsible if any part is not as per required dimensions. Approval of drawings/work by Purchaser shall not relieve the Supplier of his responsibility and liability for ensuring correctness and correct interpretation of the latest revision of applicable standards, rules and codes of practices.

3.15 DEPARTURE FROM SPECIFICATION

Should the tenderer wish to depart from the specification in any respect, he should clearly state such departures indicating the reasons thereof. Unless this is done, the departmental specification will hold good and shall be binding on the supplier unless the departures have been approved in writing by the purchaser.

3.16 TENDERS:

Tenderer shall furnish complete particulars of the material offered by them in regard to the specification and submit the same with their tender. Failure to do so or any incomplete entry therein may prevent a tender from being considered.

The tenders received without complete details required as per enclosed forms/schedules are liable to be rejected.

3.17 DELIVERY SCHEDULE

The bidder is required to quote monthly delivery for each type of Clamp . The delivery of quoted quantity should be completed in **Seven months** period including commencement period of **maximum 30 days**. In case ordered quantity is different than quoted quantity then monthly delivery shall be adjusted proportionately. Tenders in which monthly delivery schedule is not indicated shall be ignored.

The tenderers are required to indicate the delivery schedule in the schedule attached with the Specification.

3.18 PRICES: Prices offered against the specification shall be **FIRM**.

3.19 QUANTITY TOLERANCE : Quantity tolerance of plus minus 2% of ordered quantity shall be allowed for completion of supply.