



Project Group I
Power Sector, Project Engineering Management
Bharat Heavy Electricals Limited
NOIDA

Project	2X660 MW UDANGUDI SUPERCRITICAL STPP ST-I
Package	DC BATTERY CHARGER
Enquiry Ref.	PE/PG/UDN/E-6188/2019 Dt: 01.05.2019
Dated	21.05.2019
Subject	Corrigendum-2: Change in technical specification and due Date Extension up to 31.05.2019

Please note the following:

1. Amendment-01 to technical specification is issued by BHEL and enclosed with this corrigendum. Please consider the same while preparing your offer.
2. The due date for tender submission is now extended up to 31.05.2019 2:00 PM and Part-1 bid opening time to 31.05.2019 3:00 PM.

Please ensure submission of bids on or before due date.

Thanking You.

For and on behalf of BHEL

[Handwritten signature]
21/5/19

[Handwritten signature] Niyati Aggarwal
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**2 X660 MW UDANGUDI SUPER CRITICAL THERMAL
POWER PROJECT-STAGE-1**

AMENDMENT – 01

**TECHNICAL SPECIFICATION
FOR
220V DC BATTERY CHARGER**

SPECIFICATION NO : PE-TS-435-508-E002



**BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR
PROJECT ENGINEERING MANAGEMENT
NOIDA-INDIA**



TECHNICAL SPECIFICATION FOR 220V DC
BATTERY CHARGER

SPECIFICATION NO. PE-TS- 435-508-E002

DATE: 20.05.2019

Rating of Float cum boost charger for Main plant is revised to 600A.

Technical Specification Reference:	Clause As per technical Specification for DC BATTERY CHARGER:	The clause Revised as:
Data sheet-A, Page no. 01 of 3, sl no 2.1(i)	Float cum boost charger rating for Main plant-500A	Float cum boost charger rating for Main plant-600A
Annexure-B, BOQ cum price schedule, sl no 1	220V FLOAT-CUM-BOOST CHARGER1, 220V DC, 500A (MAIN PLANT)	220V FLOAT-CUM-BOOST CHARGER1, 220V DC, 600A (MAIN PLANT)

Ashu Tinku
20.5.19

Vikash Kumar
20/5/19

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20/5/19

2X660 MW UDANGUDI STPP STAGE-1

ANNEXURE-1 : BOQ CUM UN PRICE SCHEDULE FOR DC BATTERY CHARGER PACKAGE

TENDER ENQUIRY NO.: PE/PG/UDN/E-6188/2019 DATED 01.05.2019

S. No.	Item code	Item Description	Unit	Quantity	Remarks	HSN code	UNIT EX-WORKS PRICE (DULY PACKED) (INR) (1)	TOTAL EX-WORKS PRICE (DULY PACKED) (INR) (2)	FREIGHT CHARGES (3)		TOTAL PRICES (ex works + freight) (INR) (4)	APPLICABLE GST RATE IN % ON (TOTAL EX WORKS + FREIGHT) BOTH (INR) (5)		TOTAL PRICE F.O.R Prices with taxes (INR) (6)
									@ % OF TOTAL EX WORKS (3A) (MENTION RATE HERE)	AMOUNT IN (INR) (3B) =[2X3A]		GST RATE IN % ON (TOTAL EX WORKS + FREIGHT) (5A) (MENTION RATE HERE)	TOTAL AMOUNT IN (INR) (5B)=[4X5A]	
1	508-12010-A	220V FLOAT-CUM-BOOST CHARGER1, 220V DC, 600A (MAIN PLANT)	NOS	6	LEAD ACID BATTERY (2X1500 AH)	8504								
2	508-12011-A	220V FLOAT-CUM-BOOST CHARGER2, 220V DC, 50A (WATER TREATMENT & RO PLANT)	NOS	2	LEAD ACID BATTERY (78AH) WITH TAP CELL	8504								
3	508-12012-A	220V FLOAT-CUM-BOOST CHARGER3, 220V DC, 50A (SEA WATER INTAKE SYSTEM)	NOS	2	LEAD ACID BATTERY (78AH) WITH TAP CELL	8504								
4	508-12001-A	BATTERY FUSE BOX												
4.1		BATTERY FUSE BOX (MAIN PLANT)	NOS	4	BATTERY FUSE BOX OF ADEQUATE RATING AS PER LOAD DUTY CYCLE (ANNEXURE-II OF SPECIFICATION). MINIMUM RATING 1000A.	8504								
4.2		BATTERY FUSE BOX (WATER TREATMENT & RO PLANT)	NOS	1	BATTERY FUSE BOX OF ADEQUATE RATING AS PER LOAD DUTY CYCLE (ANNEXURE-II OF SPECIFICATION). MINIMUM RATING 32A.	8504								
4.3		BATTERY FUSE BOX (SEA WATER INTAKE SYSTEM)	NOS	1	BATTERY FUSE BOX OF ADEQUATE RATING AS PER LOAD DUTY CYCLE (ANNEXURE-II OF SPECIFICATION). MINIMUM RATING 32A.	8504								
5	508-12005-A	DISCHARGE RESISTOR												
5.1		DISCHARGE RESISTOR (MAIN PLANT)	NOS	2	DISCHARGE RESISTOR WITH SHUNT SUITABLE FOR 10HRS DISCHARGE RATE FOR 3000 AH LEAD ACID BATTERY (TWO PARALLEL STRINGS OF 1500AH BATTERY)	8504								
5.2		DISCHARGE RESISTOR(WATER TREATMENT & RO PLANT)	NOS	1	DISCHARGE RESISTOR WITH SHUNT SUITABLE FOR 10HRS DISCHARGE RATE FOR 78 AH LEAD ACID BATTERY (SINGLE STRING OF 78AH BATTERY)	8504								
5.3		DISCHARGE RESISTOR (SEA WATER INTAKE SYSTEM)	NOS	1	DISCHARGE RESISTOR WITH SHUNT SUITABLE FOR 10HRS DISCHARGE RATE FOR 78 AH LEAD ACID BATTERY (SINGLE STRING OF 78AH BATTERY)	8504								
6	508-12006-A	E & C SPARES												
6.1		E & C SPARES FOR FLOAT CUM BOOST CHARGER (MAIN PLANT) AT BOQ S. NO. 1	SET	1										
6.1.1		FUSE LINK WITHOUT HOLDER				8504								
a		AC I/P HRC FUSE LINK	NOS	6		8504								
b		GLASS FUSE	NOS	6		8504								
c		CONTROL HRC FUSE LINK	NOS	6		8504								
d		RECTIFIER FUSE LINK	NOS	6		8504								
e		FILTER CAPACITOR FUSE LINK	NOS	6		8504								
f		DC O/P FUSE LINK	NOS	6		8504								
6.1.2		INDICATING LAMP												
a		AC I/P LAMP RED COLOR	NOS	6		8504								
b		AC I/P LAMP YELLOW COLOR	NOS	6		8504								
c		AC I/P LAMP BLUE COLOR	NOS	6		8504								
d		DC O/P LAMP	NOS	6		8504								
6.2		E & C SPARES FOR FLOAT CUM BOOST CHARGER (WATER TREATMENT & RO PLANT) AT BOQ S. NO. 2	SET	1		8504								
6.2.1		FUSE LINK WITHOUT HOLDER												
a		AC I/P HRC FUSE LINK	NOS	6		8504								

2X660 MW UDANGUDI STPP STAGE-1

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									@ % OF TOTAL EX WORKS (3A) (MENTION RATE HERE)	AMOUNT IN (INR) (3B) =[2X3A]		GST RATE IN % ON (TOTAL EX WORKS + FREIGHT) (5A) (MENTION RATE HERE)	TOTAL AMOUNT IN (INR) (5B)=[4X5A]	
b		GLASS FUSE	NOS	6		8504								
c		CONTROL HRC FUSE LINK	NOS	6		8504								
d		RECTIFIER FUSE LINK	NOS	6		8504								
e		FILTER CAPACITOR FUSE LINK	NOS	6		8504								
f		DC O/P FUSE LINK	NOS	6		8504								
6.2.2		INDICATING LAMP												
a		AC I/P LAMP RED COLOR	NOS	6		8504								
b		AC I/P LAMP YELLOW COLOR	NOS	6		8504								
c		AC I/P LAMP BLUE COLOR	NOS	6		8504								
d		DC O/P LAMP	NOS	6		8504								
6.3		E & C SPARES FOR FLOAT CUM BOOST CHARGER (SEA WATER INTAKE SYSTEM) AT BOQ S. NO. 3	SET	1										
6.3.1		FUSE LINK WITHOUT HOLDER												
a		AC I/P HRC FUSE LINK	NOS	6		8504								
b		GLASS FUSE	NOS	6		8504								
c		CONTROL HRC FUSE LINK	NOS	6		8504								
d		RECTIFIER FUSE LINK	NOS	6		8504								
e		FILTER CAPACITOR FUSE LINK	NOS	6		8504								
f		DC O/P FUSE LINK	NOS	6		8504								
6.3.2		INDICATING LAMP												
a		AC I/P LAMP RED COLOR	NOS	6		8504								
b		AC I/P LAMP YELLOW COLOR	NOS	6		8504								
c		AC I/P LAMP BLUE COLOR	NOS	6		8504								
d		DC O/P LAMP	NOS	6		8504								
7	508-12024-A	TYPE TEST	LOT	1										
7.1		HEAT RUN TEST	SET	2	HEAT RUN TEST TO BE CONDUCTED ON ONE CHARGER OF EACH RATING (i.e. TEST TO BE CONDUCTED ON 1 NO. CHARGER AT BOQ S. NO. 1 AND 1 NO. CHARGER AT BOQ S. NO. 2 & 3 TOGETHER)	9987								
8	508-12020-A	SUPV OF E&C	SET	1	1 VISIT & 4 DAYS EACH FOR UNIT-1 MAIN PLANT,UNIT-2 MAIN PLANT,WATER TREATMENT & RO PLANT SEA WATER INTAKE									
8.1		LUMP SUM CHARGES PER VISIT FOR ENGINEER (EXCEPT DAILY CHARGES)	VISIT	4	REFER NOTE - 1, 2 & 3	9987								
8.2		LUMP SUM DAILY CHARGES FOR ENGINEER	DAYS	16	REFER NOTE - 1, 2 & 3	9987								
9	508-12000-B	MANDATORY SPARES												
		(* One set corresponds to actual quantity of components and devices as installed for the equipment at Site)												
9.1		MANDATORY SPARES FOR FLOAT CUM BOOST CHARGER (MAIN PLANT) AT BOQ S. NO. 1	SET	1										
a		ELECTRONIC CARDS (WITH ALL COMPONENTS MOUNTED)	SET (OF EACH TYPE & RATING)	1		8504								
b		FUSES	NOS (OF EACH TYPE & RATING)	4		8504								
c		SCR	NOS (OF EACH TYPE & RATING)	6		8504								
d		BLOCKING DIODE	SET (OF EACH TYPE & RATING)	6		8504								

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									@ % OF TOTAL EX WORKS (3A) (MENTION RATE HERE)	AMOUNT IN (INR) (3B) =[2X3A]		GST RATE IN % ON (TOTAL EX WORKS + FREIGHT) (5A) (MENTION RATE HERE)	TOTAL AMOUNT IN (INR) (5B)=[4X5A]	
e		POTENTIOMETER	SET (OF EACH TYPE & RATING)	3		8504								
f		MCCB	SET	10 % OF EACH TYPE & RATING		8504								
g		LEDs LAMPS	NOS (OF EACH TYPE & RATING)	5		8504								
9.2		MANDATORY SPARES FOR FLOAT CUM BOOST CHARGER (WATER TREATMENT & RO PLANT) AT BOQ S. NO. 2	SET	1										
a		ELECTRONIC CARDS (WITH ALL COMPONENTS MOUNTED)	SET (OF EACH TYPE & RATING)	1		8504								
b		FUSES	NOS (OF EACH TYPE & RATING)	4		8504								
c		SCR	NOS (OF EACH TYPE & RATING)	6		8504								
d		BLOCKING DIODE	SET(OF EACH TYPE & RATING)	6		8504								
e		POTENTIOMETER	SET(OF EACH TYPE & RATING)	3		8504								
f		MCCB	SET	10 % OF EACH TYPE & RATING		8504								
g		LEDs LAMPS	NOS (OF EACH TYPE & RATING)	5		8504								
9.3		MANDATORY SPARES FOR FLOAT CUM BOOST CHARGER (SEA WATER INTAKE SYSTEM) AT BOQ S. NO. 3	SET	1										
a		ELECTRONIC CARDS (WITH ALL COMPONENTS MOUNTED)	SET (OF EACH TYPE & RATING)	1		8504								
b		FUSES	NOS (OF EACH TYPE & RATING)	4		8504								
c		SCR	NOS (OF EACH TYPE & RATING)	6		8504								
d		BLOCKING DIODE	SET (OF EACH TYPE & RATING)	6		8504								
e		POTENTIOMETER	SET(OF EACH TYPE & RATING)	3		8504								
f		MCCB	SET	10 % OF EACH TYPE & RATING		8504								
g		LEDs LAMPS	NOS (OF EACH TYPE & RATING)	5		8504								
TOTAL IN FIGURES														
TOTAL IN WORDS														

NOTES:

1) AMOUNT PAYABLE FOR ENGINEER PER VISIT TO SITE = VISIT CHARGES AS PER SL. NO. 8.1 ABOVE + (DAILY CHARGES AS PER SL. NO. 8.2 ABOVE X NO. OF DAYS AT SITE) (TO BE CERTIFIED BY BHEL SITE).

2) THE VISIT CHARGES SHALL BE INCLUSIVE OF CHARGES OF AIR FARE/TRAIN FARE , BOARDING/LODGING, LOCAL CONVEYANCE, MEDICAL , INSURANCE ETC.

3) SITE VISIT CHARGES SHALL BE APPLICABLE FOR ANY VISIT MADE BY VENDOR AT SITE AFTER RECEIVING THE INSTRUCTION FROM BHEL FOR DEPUTATION OF VENDOR REPRESENTATIVE. THE VISIT CAN BE CALLED FOR SUPERVISION OF COMMISSIONING & TESTING ETC.

4) ALL CABLE GLANDS & LUGS AT CHARGER, FUSE BOX & DISCHARGE RESISTOR END ARE IN BIDDER'S SCOPE.