



PURCHASE SPECIFICATION
GROUP : SAG/BHEL CORP R&D

SAG-535-48-06

REV NO: 00

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Technical specification for Supply, Erection and Commissioning of LED display boards, Aviation obstacle lamps, Inverter and Batteries with 2 years onsite warranty

 बीएच ई एल BHEL Corp. R&D	PURCHASE SPECIFICATION GROUP : SAG/BHEL CORP R&D	SAG-535-48-06
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1.0 Scope of Supply

Supply, Erection and Commissioning of LED based display boards, aviation obstacle lamps and UPS (Batteries and Inverter) as specified in the clause 2.0

1.1 LED Display Board as per technical specification in clause 2.0.

1.2 The subject and font with sizes are as per Attached drawings and clause 2.0

1.3 Aviation obstacle lamps along with automatic ON/OFF timer as per clause 2.0

1.4 UPS (AC inverter and Batteries) as per technical specification in Clause 2.0

1.5 Erection and Commissioning of LED Display Board and installation and commissioning of UPS (Inverter and batteries) at site (Sanjeevaiah Park, Hyderabad)

2.0 Technical Specification

SI no.	Feature	Specification/requirement	Quantity
1	LED Display board with ACP protection film	LED, letters should be raised by at least 5 CM so that, it is visible when LEDs are OFF in day time. Shall be waterproof and for outdoor application LEDs shall be of Samsung, Philips, Nichia, Cree or equivalent The display board shall have the Blue color LED border of sufficient width.	12X5ft. – 1 No 5X2ft. – 1 No
2	Installation	Outdoor type	NA
3	Lumen	32000 Lumen or higher for 12X5 ft. board size 6000 lumen or higher for 5X2 ft. board size	NA
4	Colour	RED- for Font BLUE- for border (see annexure-SAG-535-48-007)	NA
5	Protection class	IP65	NA
6	Height of	75 CM or higher for “BHEL-hmda” and 30 CM or higher	NA



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	characters	for "FLOATING SOLAR"	
7	ON/OFF timer	Automatic when intensity of light falls (in night) it should turn ON and in day time when light intensity is sufficient it should turn OFF	2 No's
8	Burning life of LEDs	>50000 hrs.	NA
9	Working voltage	230 V, single phase AC, 50 Hz	NA
10	Ambient Temperature	Up to 55 degree Celsius	NA
11	1.5 KVA AC inverter	Shall be of APC, Luminous, Microtek, Kevin, Sukam or equivalent	1 No
12	Aviation obstacle Lamps	Shall be of high brightness with least power consumption. And shall be of reputed make.	6 No's
13	180 Ah or higher batteries	BATTERIES OF 12V, 180 Ah or higher for 1X1.5 KVA UPS. Microtek, TATA Green, Amaron, Exide, Gowell, Prestolite or Equivalent	2 No's
14	Relays, fuses, distribution board, wiring and other accessories	Required quantity for installation and commissioning of LED display board and UPS (inverter and batteries) Minimum 2 no's of Distribution boards with provisions for 2 plug points each.	As required for the scope of work
15	Installation and commissioning at site (Sanjeevaiah Park, Hyderabad)	The 12X5 ft. board shall be done by vendor on a floating platform (provided by BHEL) of approx. 50 meter away from bank The 5X 2 ft. shall be done by vendor at a height of approx. 5 meter at control room at site for display boards Support structure shall be in vendor scope UPS and Batteries shall be installed in the control room with all electrical connections The shifting of all the materials to the assembly and	2 No's of LED display boards, UPS (Inverter and batteries)



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		erection point/control room from storage location (BHEL R&D, Vikas Nagar) for erection will be in the scope of the vendor and he has to make necessary arrangements for the same	
16	Warranty (On-site)	As per Clause 4.0	2 years from successful commissioning
17	Safety during the erection and commissioning	<p>The contractor shall take all the necessary measures to prevent accidents. It is the responsibility of the contractor not to allow any worker to work in an unsafe condition, nor with unsafe equipment.</p> <p>The contractor shall provide adequate and suitable Personal Protective Equipment's (PPEs), wherever they are required, to all concerned personnel. The quality of this equipment's shall conform to National (BIS) or International Standards.</p>	

3.0 Vendor Qualification Criteria

The vendors must have the following to be eligible for offering LED based Display Board against this tender and shall comply for the same. The vendors not meeting following criteria will not be considered during technical evaluation.

- 3.1 Vendor should have supplied LED based Display Board of similar type to reputed firms preferably PSU's and Govt. organizations and shall be working satisfactorily from at least 12 months.
- 3.2 Vendor shall submit complete testing procedure for LED Display Board
- 3.3 Vendor shall submit the power requirement for the display boards and aviation lamps separately.

4.0 Warranty:

- Vendor has to provide the on-site warranty (labour, parts) for a period of minimum 2 years from the date of successful commissioning (for vendor's scope of supply & work).
- Vendor shall attend the fault within 48 hours from the reporting time. Vendor shall furnish the fault report by giving details of fault, action taken and steps to prevent occurrence.

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- Vendor has to supply necessary spares including consumables for continuous operation of the Equipment for the warranty period after the successful commissioning.
- Warranty certificates shall be submitted for all bought-out items along with the shipment.

Notes: Vendor has to procure materials as per listed make or equivalent.

5.0 List of enclosures:

1. BHEL Logo drawing- Drg No: AA0401120
2. Sample display with font and subject to be displayed- Doc No: SAG-735-48-007

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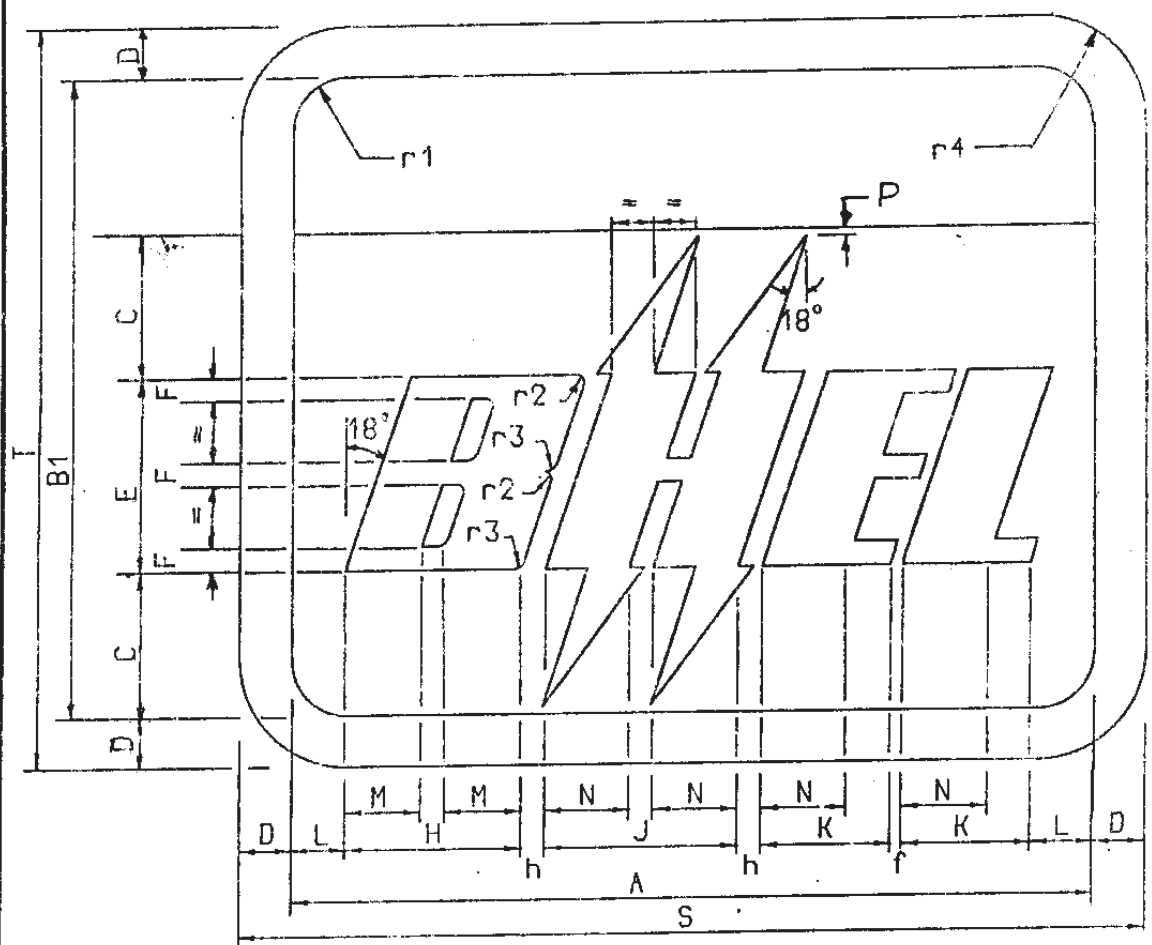


FIG. - 1

TABLE - 1

MONO GRAM SIZE	D I M E N S I O N S																			Overall	
	B1	C	D	E	F	G	H	J	K	L	M	N	P	f	h	r1	r2	r3	r4	Size	SXT
A	.81A	.183A	.065A	.25A	.032A	.067A	.22A	.24A	.16A	.078A	.095A	.105A	.01A	.015A	.03A	.07A	.02A	.025A	.135A		
10	8.0	1.8	1.0	2.5	0.32	0.67	2.2	2.4	1.6	0.78	0.95	1.05	0.10	0.15	0.30	0.70	0.20	0.25	1.35	12x10	
15	12.0	2.7	1.0	3.7	0.48	1.0	3.3	3.5	2.4	1.2	1.4	1.5	0.15	0.2	0.50	1.0	0.30	0.40	2.0	17x14	
25	21.0	4.6	1.5	6.3	0.80	1.6	5.4	6.0	4.0	2.0	2.3	2.6	0.25	0.4	0.80	1.8	0.50	0.60	3.3	28x24	
40	33.0	7.3	2.5	10.0	1.3	2.8	9.0	9.6	6.45	3.1	4.0	4.2	0.40	0.6	1.0	3.0	0.80	1.0	5.5	45x38	
60	49.0	11.0	4.0	15.0	2.0	4.0	13.0	14.4	9.5	4.6	5.5	6.3	0.60	1.0	2.0	4.0	1.20	1.5	8.0	68x57	
100	81.0	18.0	6.5	25.0	3.0	6.7	22.0	24.0	16.0	7.8	9.5	10.5	1.0	1.5	3.0	7.0	2.0	2.5	13.5	113x94	
125	102.0	23.0	8.0	31.0	4.0	8.6	27.5	30.0	20.0	9.7	12.0	13.0	1.25	1.8	3.7	9.0	2.5	3.0	17.0	141x118	
160	131.0	29.0	10.5	40.0	5.0	11.0	35.0	33.4	25.6	12.4	15.0	16.8	1.5	2.4	4.8	11.0	3.0	4.0	21.5	181x152	
200	163.0	36.6	13.0	50.0	6.0	13.4	44.0	46.0	32.0	15.6	19.0	21.0	2.0	3.0	6.0	14.0	4.0	5.0	27.0	225x169	
250	204.0	45.0	16.0	62.5	8.0	16.7	54.0	60.0	40.0	19.5	24.5	26.5	2.5	3.8	7.0	17.5	5.0	6.0	34.0	312x231	
320	260.0	59.0	21.0	80.0	10.0	21.0	70.0	77.0	51.0	25.0	30.0	33.5	3.0	5.0	10.0	23.0	6.5	8.0	43.0	382x312	
400	326.0	73.0	26.0	100.0	13.0	27.9	88.0	96.0	64.0	31.0	38.0	42.0	4.0	6.0	12.0	28.0	8.0	10.0	54.0	452x378	
600	489.0	110.0	39.0	150.0	19.0	40.0	132.0	144.0	96.0	47.0	57.0	63.0	6.0	9.0	18.0	42.0	12.0	15.0	81.0	678x567	



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