



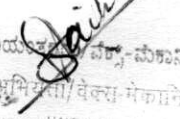
ANNEXURE - A

Ref : P.R. No. 30022523 dated 16.05.2016 (Item No. 1)

**AIR SHOWER (CLASS 10000) FOR SOLAR PV MODULE MANUFACTURING SHOP FLOOR  
CAPACITY : 3-5 PERSONS**

Sl No.	PARAMETERS	BHEL's REQUIREMENT	VENDOR'S REPLY
1	USE	INDUSTRIAL PURPOSE To be used in Solar PV module manufacturing shop floor	
2	MODE OF OPERATION	Automatic	
3	AIR SHOWER CAPACITY	3-5 PERSONS	
4	MATERIAL OF CONSTRUCTION FOR THE CABINET	SS-304	
5	PLATFORM	SS-304 with PVC mat	
6	DOOR	View panel door SS-304 With flush double glazing glass, hardware like door closure, D handles, ball bearing butt hinges etc	
7	OVERALL DIMENSIONS	1620 x 1405 x 2700 mm (W x D x H) Dimension mentioned here is indicative Vendor to provide dimension of their standard product	
8	INNER DIMENSIONS	1220 x 1220 x 1900 mm (W x D x H) Dimension mentioned here is indicative Vendor to provide dimension of their standard product	
9	CLEANLINESS	Class 10000/ ISO-7, Cleanliness certificate to be provided	
10	AIR VELOCITY AT NOZZLE DISCHARGE	24±2 m/sec Value mentioned here is indicative Vendor to provide value of their standard product	
11	NOISE LEVEL (DB)	Max 100 db A±5 % Value mentioned here is indicative Vendor to provide value of their standard product	
12	SHOWER DURATION	0-120 Second with programmable operating modes	
13	NOZZLES	Blowing Caliber – 30 mm Material of construction – Stainless steel Type – Adjustable	
14	PRE-FILTER	Disposable pre-filter with 90% efficiency	
15	FILTERS	HEPA Filter , Class H-13/ ISO-30 H or Higher ( 99.99 % Efficiency)	
16	POWER SUPPLY	3 PHASE/ 415 V/ 50 Hz	
17	MOTOR BLOWER	2 HP	
18	DOOR CONTROLS	Automatic with Electro magnetic interlock arrangement	
19	LIGHTING	LED Lighting, Min. 15 Watt	
20	SAFETY	a. Emergency stop button to be provided b. Audio visual alarm to be provided as a safety measure in case motor blower trips	
21	QUANTITY	1	
22	DRAWING	Vendor to provide reference/schematic drawing	
23	CATALOGUE	To be submitted	
24	INSTALLATION & COMMISSIONING	Scope of Supplier	
25	DELIVERY	6 Weeks from the Date of Issue of Purchase Order	
26	WARRANTY	12 Months from the Date of Commissioning	
27	AFTER SALES SERVICE	Reliable after sales service should be available. Vendor to provide necessary details	
28	QUALIFICATION CRITERIA	a. Bidder should be Original Equipment Manufacturer (OEM) or Authorized Dealer for the Item quoted. Bidder to give necessary OEM certificate or Dealership Certificate. b. Vendor should have installed Minimum of 3 installation in Solar PV shops or Electrical / Electronic industry in the last three years. Necessary Installation certificate to be provided.	

Note: Vendor may provide additional feature in-built in their standard product. However, such additional feature will not attract any additional weightage on price-bid, during price bid evaluation.

  
 ಅಮರ್ಜ್ಯೋತಿ ಸೈಕಿಯಾ, ಅಭಿಯಂತರ/ವಿನ್ಯಾಸ-ಮೇಕಾನಿಕಲ್ ಮಂಟೇನೆನ್ಸ್  
 ಅಮರ್ಜ್ಯೋತಿ ಸೈಕಿಯಾ, ಅಭಿಯಂತರ/ವಿನ್ಯಾಸ-ಮೇಕಾನಿಕಲ್ ಮಂಟೇನೆನ್ಸ್  
 AMARJYOTI SAIKIA, Engineer/WEX-Mechanical Maintenance  
 BHEL-EPD, BANGALORE-560 012



## ANNEXURE - B

Ref : P.R. No. 30022523 dated 16.05.2016 (Item No. 2)

**AIR SHOWER (CLASS 10000) FOR SOLAR PV MODULE MANUFACTURING SHOP FLOOR  
CAPACITY : 10 PERSONS**

Sl No.	PARAMETERS	BHEL's REQUIREMENT	VENDOR'S REPLY
1	USE	INDUSTRIAL PURPOSE To be used in Solar PV module manufacturing shop floor	
2	MODE OF OPERATION	Automatic	
3	AIR SHOWER CAPACITY	10 PERSONS	
4	MATERIAL OF CONSTRUCTION FOR THE CABINET	SS-304	
5	PLATFORM	SS-304 with PVC mat	
6	DOOR	View panel door SS-304 With flush double glazing glass, hardware like door closure, D handles, ball bearing, butt hinges etc for entry and exit door	
7	OVERALL DIMENSIONS	1600 x 3100 x 2900 mm (W x D x H) Dimension mentioned here is indicative Vendor to provide dimension of their standard product	
8	INNER DIMENSIONS	915 x 3000 x 1950 mm (W x D x H) Dimension mentioned here is indicative Vendor to provide dimension of their standard product	
9	CLEANLINESS	Class 10000/ ISO-7, Cleanliness certificate to be provided	
10	AIR VELOCITY AT NOZZLE DISCHARGE	24±2 m/sec Value mentioned here is indicative Vendor to provide value of their standard product	
11	NOISE LEVEL (DB)	Max 100 db A ± 5 % Value mentioned here is indicative Vendor to provide value of their standard product	
12	SHOWER DURATION	0-120 Second with programmable operating modes	
13	NOZZLES	Blowing Caliber – 30 mm Material of construction – Stainless steel Type – Adjustable.	
14	PRE-FILTER	Disposable pre-filter with 90% efficiency	
15	FILTERS	HEPA Filter , Class H-13/ ISO-30 H or Higher ( 99.99 % Efficiency)	
16	POWER SUPPLY	3 PHASE/ 415 V/ 50 Hz	
17	MOTOR BLOWER	2 HP	
18	DOOR CONTROLS	Automatic with Electro magnetic interlock arrangement	
19	LIGHTING	LED Lighting with sufficient illumination , Min. 15 Watt	
20	SAFETY	a. Emergency stop button to be provided b. Audio visual alarm to be provided as a safety measure in case motor blower trips	
21	QUANTITY	1	
22	DRAWING	Vendor to provide reference/schematic drawing	
23	CATALOGUE	To be submitted	
24	INSTALLATION & COMMISSIONING	Scope of Supplier	
25	DELIVERY	6 Weeks from the Date of Issue of Purchase Order	
26	WARRANTY	12 Months from the Date of Commissioning	
27	AFTER SALES SERVICE	Reliable after sales service should be available. Vendor to provide necessary details	
28	QUALIFICATION CRITERIA	a. Bidder should be Original Equipment Manufacturer (OEM) or Authorized Dealer for the Item quoted. Bidder to give necessary OEM certificate or Dealership Certificate. b. Vendor should have installed Minimum of 3 installation in Solar PV shops or Electrical / Electronic industry in the last three years. Necessary Installation certificate to be provided.	

Note: Vendor may provide additional feature in-built in their standard product. However, such additional feature will not attract any additional weightage on price-bid, during price bid evaluation.