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PURCHASE SPECIFICATION

PS/415/2399

Rev. No.: 02

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PURCHASE SPECIFICATION OF 24VDC BUSHLESS AXIAL FAN 120X120 MM with 2 way/pin plug & socket

Rev No	Date	Nature of change	Reasons	Prepared By	Checked By	Approved By
00	20/09/2023	First Issue	----	KUCN	VP	BR
01	19/04/2025	Second Issue	Added details to include 2way/pin socket & plug	KUCN	VP	KKJ
02	20/03/2026	Third Issue	Added details to cover wires with full length sleeve	KUCN	VP	KKJ

REVISIONS 02 20/03/2026

APPROVED

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PREPARED BY

CHECKED BY

ISSUED BY

DATE

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20/03/2026



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PURCHASE SPECIFICATION OF 24VDC BUSHLESS AXIAL FAN 120X120 MM with 2 way/pin plug & socket

A. Scope:

This specification covers the technical requirements for 24VDC BUSHLESS AXIAL FAN 120X120 mm.

B. Purpose:

24VDC BUSHLESS AXIAL FANS of 120X120 mm are used in DCS Control Cabinets (24x7 operations) for air circulation and cooling inside control cabinets and is meant for continuous operation.

C. Technical Specification:

The 24VDC BUSHLESS AXIAL FAN unit shall meet the following minimum requirements.

- 1) Operating Voltage: 24V DC +/- 20%, Current: 250mA
- 2) The unit shall have two lead wires Red (+), Black (-) #22AWG (UL1007 or equivalent industry standard), L=300±5mm.
- 3) The wires shall be terminated to a 2way/pin socket (Molex make Part no.50-84-1025 or equivalent) and a suitable 2pin plug (Molex make Part no.50-84-2022 or equivalent) to be provided as a loose item.
- 4) The wires from Fan Module till the socket connector shall be covered with full length industry grade white soft PVC tube sleeves.
- 5) The fan blade and housing/frame shall be made of PBT (Polybutylene terephthalate) or equivalent with a Minimum Airflow of 105CFM @ 2700rpm and noise level < 50dBA.
- 6) Maximum dimensions of the 24VDC Bushless Axial Fan suitable for mounting in vertical position on door panel shall be W*H*D = 120mm*120mm*38mm.

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REVISIONS 02 20/03/2026

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19/04/2025



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PURCHASE SPECIFICATION

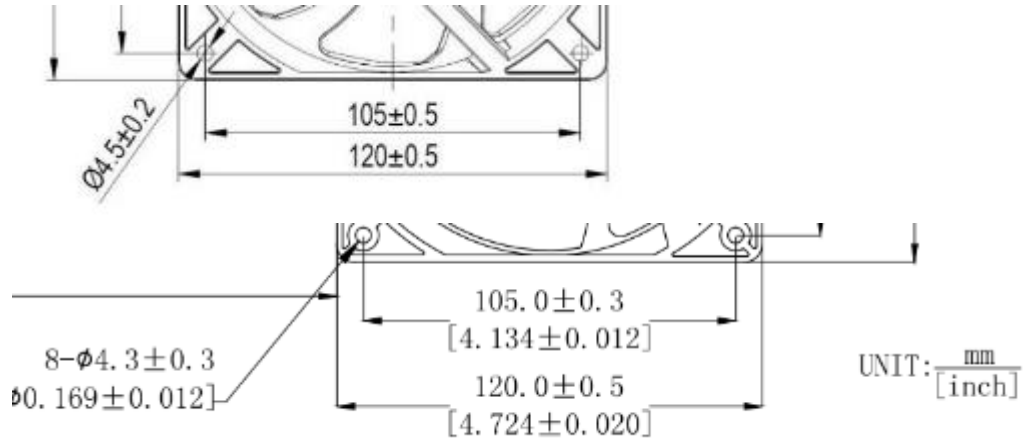
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- 7) The unit shall have 4 holes (one at each corner) for screw fixation on both sides, one side for mounting on cabinet door and on the other side for METAL FINGER GUARD fixation. The holes shall have diameter of $4.5+/-0.3$ mm and holes shall be at equidistant of $105+/-0.3$ from one another (Sample pictures shown as below).



- 8) The 24VDC BUSHLESS AXIAL FAN 120X120 mm should have batch number/month & year of manufacturing printed on it.
9) Fan air flow direction and the Pins shall be identified with proper markers.
10) Inrush current: maximum of 0.8A
11) Operating temperature = 0~60 degC

D. Documents / Certificates to be submitted along with Technical Offer:

1) Test report: Supplier shall submit Test Report / Compliance report for all the above-mentioned features indicating serial number of the 24VDC Bushless Axial Fan module and date of test.

2) The bidder should have supplied the quoted model to any DCS vendor catering to control system for any power plant or process industry. The bidder to submit unpriced PO copies and catalogues as a proof. The submitted PO copy date should not be older than three years from the date of opening of bid.

Along with the documents related to above, following details shall also be included in the Offer:

- I. Technical literature / Manuals of offered 24VDC Bushless Axial Fan
- II. Unpriced Purchase Order copies

3) If Vendor has not already supplied the quoted model to BHEL-EDN, then two nos. sample pieces shall be provided for evaluation.

Confirmation: Supplier shall indicate clause-wise confirmation.