

LG Electronics HVAC Service & Maintenance

Hi-M.Solutek

BIG DREAMS

NEED BIG INNOVATIONS



AIR HANDLING UNIT
Complete HVAC Solutions



Hospital
Reception



School
Auditorium



Office
Lounge



Hotel
Lobby



Indoor
Stadium



Metro
Platform



Shopping
Mall

About Hi-M.Solutek

Global 1,100 Engineer with comprehensive air conditioning engineer infrastructure HVAC Total Solution & Maintenance No.1 Company

Hi-M.Solutek, a subsidiary of LG Electronics since 2006, is a trusted expert in HVAC solutions—offering **installation, maintenance, and repair** across industries. Powered by customer trust, we continue to expand our global service footprint.

With the launch of the **DX AHU (Direct Expansion Air Handling Unit)** in India, we offer **advanced climate control** for commercial and industrial spaces. Seamlessly integrated with **LG's Multi V** system, it delivers **cooling, heating, and free cooling** in one compact, energy-efficient unit.



Mission

We **design, manage, and maintain** HVAC systems **tailored** to each client's space and needs—enhancing **comfort, efficiency, and sustainability**. Through **energy-saving, eco-friendly solutions**, Hi-M.Solutek is committed to creating **long-term customer value** and contributing to a **greener future**.



Established Subsidiaries in 13 Countries



Cooling



Heating



Humidification



Ventilation



Air Purification

About DX AHU

The DX AHU (Direct Expansion Air Handling Unit) is an advanced heat pump solution that seamlessly integrates AHU technology with LG's Multi V system, offering a versatile combination of cooling, heating, and free cooling in one compact setup. Designed to deliver a complete HVAC solution, it encompasses essential air management functions such as cooling, heating, humidification, ventilation, and air purification. Inverter-driven technology ensures significant energy savings, while its user-friendly design simplifies maintenance and serviceability, making it an ideal solution for high-performance, sustainable climate control.

Special Features

- **Applications**
Cooling, Heating, Humidification, Ventilation.
- **Framework**
Mainframe of self-supporting hollow extruded Aluminum profile.
- **Frame Panels**
Double Skin CFC / HFC free PUF injected 25 / 43 / 50 / 75 mm thick panels.
Various skin options are available in plain GSS, pre-painted GSS, pre-plasticized GSS, Aluminum, Stainless steel as per duty requirements.
- **Fan Section**
Fan Section contains belts driven DIDW Forward / Backward / Aerofoil Backward curved Centrifugal Blower & direct driven Plug Fans.
- **Fan/Motor Assembly**
Fan and Motor assembly mounted on common base frame of Extruded Aluminum Profile on vibration isolators.
- **Coil Section**
Coil Section designed for CHW / HW / DX high efficiency heat transfer coils.
- **Drain Pan**
Dual Slopping Aluminum / Stainless steel drain pan mounted on PUF insulated bottom panel.
- **Filter Section**
Flat Filter Section designed for Synthetic pleated pre-filters.
Choice of filtration is available as per required duty conditions levels.
- **Outdoor Installation**
Overhead canopy available for outdoor installation.
- **Optional Sections**
Mixing chamber - For Fresh Air & Return Air mixing.
Manual / Motorized controls- optional.
Micro 'V' / Hepa / Bag / EU- 4 / EU- 7 / EU- 9 / EU- 13 / Special
Filtration Filter Section.
Heat Recovery Wheel Section.
Spray / Pan Humidification Section.
Other Special Sections as per individual customer requirements.





Application Versatility of DX AHUs

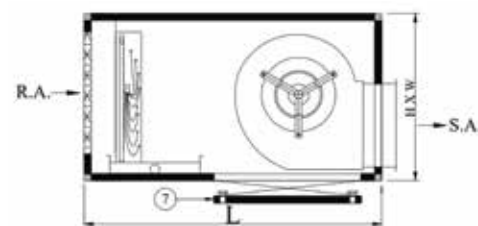
DX AHUs are engineered to serve a wide range of environments with high-performance air management. Ideal for Healthcare, Commercial Spaces, Hospitality, Industrial Facilities, Data Centers, and Educational Institutions, they offer precise control over temperature, humidity, airflow, and air quality. Their modular, energy-efficient design ensures ease of installation, scalability, and consistent performance across diverse applications.



Specification

Series 1

DIDW Fan with EC motor with potentiometer



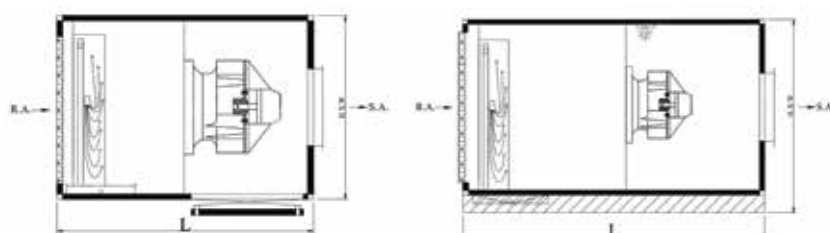
AHU	CFM	S.P.	Approx. Dimensions			S.P.	BLOWER	MOTOR	COIL	COIL	QTY.
						MM	MODEL	(WATT)	ROWS	AREA	SET
DS-CS-DX(3/8")-TB-50-DD (SINGLE PHASE)-EC MOTOR & POTENTIOMETER-W/O DAMPER & SENSOR	2500	35	675	1350	1000	35	11"x11"-2	400	4	5	1
	3000	35	675	1450	1000	35	11"x11"-2	600	4	6	1
	4000	35	750	1625	1050	35	12"x9"-2	900	4	8	1
	5000	35	800	1850	1125	35	BC 400-2	1250	4	10	1

COMPONENT	DESCRIPTION
• Drain Pan (Ceiling Suspended)	22G SS-304 sheet with 12 mm nitrile rubber insulation
• Blower & Motor (Single Phase)	Direct drive fan (Make: WOLTER) with EC motor and potentiometer
• Blower & Motor Mounting	Mounted on extruded aluminum/GI channel base with rubber isolators and fire-retardant canvas connection. Includes inspection door with limit switch, marine light & safety guard
• Fan Section (Floor Mounting)	Inspection door equipped with limit switch, marine light & safety guard

Accessory: Damper

Series 2

EC Fan with Potentiometer

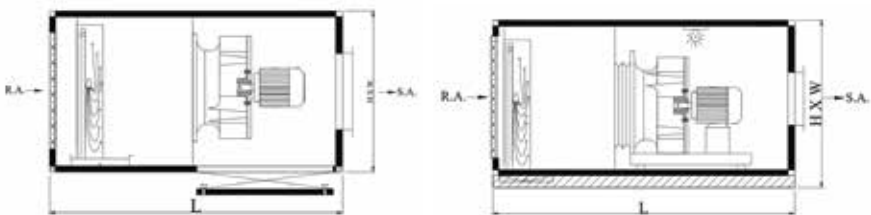


AHU	CFM	S.P.	Approx. Dimensions			S.P.	BLOWER	MOTOR	COIL	COIL	QTY.
						MM	MODEL	(HP)	ROWS	AREA	SET
DS-CS-DX(3/8")-TB-50-EC FAN & POTENTIOMETER-W/O DAMPER, SMART PANEL & SENSOR			H	W	D				DX	(SQ.FT.)	
	2500	40	750	1150	1500	40	PFE-EC 355D1x1	1.1x1	4	5	1
	3000	40	750	1300	1500	40	PFE-EC 400D1x1	1.58x1	4	6	1
	4000	40	700	1975	1500	40	PFE-EC 355D1x2	1.1x2	4	8	1
DS-FM-H-DX(3/8")-TB-50-EC FAN & POTENTIOMETER-W/O DAMPER, SMART PANEL & SENSOR	5000	40	700	2150	1500	40	PFE-EC 355D1x2	1.1x2	4	10	1
	8000	40	1250	1900	1850	40	PFE-EC 630D1x1	3.5x1	4	16	1
	10000	40	1250	2250	1850	40	PFE-EC 500D1x2	3.46x2	4	20	1
	12000	40	1250	2650	1850	40	PFE-EC 500D1x2	3.46x2	4	24	1
	15000	40	1550	2550	2050	40	PFE-EC 560D1x2	3.53x2	4	30	1
	18000	40	1550	2960	2050	40	PFE-EC 630D4x2	4.1x2	4	36	1
	20000	40	1750	2960	2100	40	PFE-EC 630D4x2	4.1x2	4	40	1

COMPONENT	DESCRIPTION
• Drain Pan (Floor Mounted)	22G SS-304 sheet with PUF (injection) insulation, covered with plain GI sheet
• Drain Pan (Ceiling Suspended)	22G SS-304 sheet with 12 mm nitrile rubber insulation
• Blower & Motor (Three Phase)	EC fan and motor (Make: WOLTER) with potentiometer (without smart panel, sensors, or controls) Construction as per manufacturer standard
• Blower & Motor Mounting	Mounted on extruded aluminum/GI base with rubber vibration isolators and fire-retardant canvas connection. Includes inspection door with limit switch, marine light & safety guard for floor mounted
• Fan Section (Floor Mounting)	Inspection door equipped with limit switch, marine light & safety guard

Accessories: Smart Panel, Damper, Temp Sensor

Specification



Series 3 Plug Fan with TEFC Induction Motor

AHU	CFM	S.P.	Approx. Dimensions			S.P.	BLOWER	MOTOR	COIL	COIL	QTY.
						MM	MODEL	(HP)	ROWS	AREA	SET
			H	W	D				DX	(SQ.FT.)	
DS-CS-DX(3/8")-TB-50-PFBC-W/O VFD & DAMPER	2500	40	775	1100	1600	40	PFE-450 X 1	1.5/4P X 1	4	5	1
	3000	40	775	1325	1600	40	PFE-450 X 1	1.5/4P X 1	4	6	1
	4000	40	850	1475	1650	40	PFE-500 X 1	2.0/4P X 1	4	8	1
	5000	40	775	1850	1600	40	PFE-450 X 2	1.5/4P X 2	4	10	1
DS-FM-H-DX(3/8")-TB-50-PFBC-W/O VFD & DAMPER	8000	40	1400	1650	2200	40	PFE-630 X 1	5.0/4P X 1	4	16	1
	10000	40	1400	1900	2200	40	PFE-630 X 1	7.5/4P X 1	4	20	1
	12000	40	1550	2550	2350	40	PFE-710 X 1	7.5/4P X 1	4	24	1
	15000	40	1550	2800	2350	40	PFE-710 X 1	10.0/4P X 1	4	30	1
	18000	40	1600	2950	2450	40	PFE-800 X 1	15.0/4P X 1	4	36	1
	20000	40	1650	3000	2600	40	PFE-900 X 1	15.0/4P X 1	4	40	1

COMPONENT	DESCRIPTION
• Drain Pan	22G SS-304 sheet construction — PUF (injection) insulated and GI-covered for floor mounting; 12 mm nitrile rubber insulated for ceiling suspension
• Blower (Direct Driven Plug Fan)	Backward curved plug fan (Make: WOLTER) with VFD (IP20/FC51)
• Blower & Motor Mounting	Mounted on extruded aluminum/GI base frame with rubber vibration isolators and fire-retardant canvas connection. Includes inspection door with limit switch, marine light & safety guard
• Fan Section (Floor Mounting)	Inspection door equipped with limit switch, marine light & safety guard
• Motor (Plug Fan)	TEFC motor (IE2 as per IS:12615-2011) Make: Crompton / Siemens / Havells / LHP For VFD: Max cable length 13 m; Voltage 415V ±10% at motor terminal during startup
Accessories: VFD (IP20/FC51), Damper	

Common Features: Series 1, 2 & 3

COMPONENT	DESCRIPTION
• Outer Skin	0.6 mm thick pre-coated sheet
• Inner Skin	0.6 mm thick plain GI sheet
• Framework	Extruded aluminum with thermal break profile
• Panel Thickness	50 ± 2 mm thick
• Panel Insulation	Injected PUF — CFC/HFC-free & fire retardant
• Pre-Filters	50 mm thick synthetic media with aluminum frame

LG Electronics HVAC Service & Maintenance

Hi-M.Solutek



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