



 PRODUCT-DETAILS

ACH580-04-650A-4

LV AC drive module for HVAC, IEC: Pn 355 kW, 650 A, 400 V, UL: Pld 500 Hp, 623 A, 480 V (ACH580-04-650A-4)



General Information

Global Commercial Alias:	ACH580-04-650A-4
Product ID:	3AXD50000049066
ABB Type Designation:	ACH580-04-650A-4
Catalog Description:	LV AC drive module for HVAC, IEC: Pn 355 kW, 650 A, 400 V, UL: Pld 500 Hp, 623 A, 480 V (ACH580-04-650A-4)
Long Description:	ACH580 HVAC drive offering has all key features built-in to control fans, pumps and compressors, and more complex equipment like air-handling units and chillers, ensuring smooth, energy-efficient operation of your HVAC systems in normal and mission-critical situations. The built-in features significantly reduce installation time, and the intuitive control panel with an HVAC-specific primary settings menu and help assistants makes startup, commissioning and operation easy. The optional Bluetooth® capability enables the commissioning and monitoring of the drive from a distance. The ACH580-04 drive module comes in IP00 enclosure as standard for cabinet installation. Also, IP20 enclosure is available.
Display Name:	ACH580-04-650A-4

Ordering

Customs Tariff Number:	85044087
HS Code:	850440 -- ELECTRICAL MACHINERY AND EQUIPMENT AND PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES;Electrical transformers, static converters (for example, rectifiers) and inductors;Static converters
Invoice Description:	ACH580-04-650A-4 PN: 355 kW, IN: 650 A
Made To Order:	Yes
Minimum Order Quantity:	1 piece
Order Multiple:	1 piece
Quote Only:	No
Selling Unit of Measure:	piece

Dimensions

Product Net Weight:	161 kg 354.945 lb
Product Net Depth / Length:	529 mm 20.827 in
Product Net Height:	1462 mm 57.559 in
Product Net Width:	350 mm 13.780 in
Package Level 1 Depth / Length:	2060.00 mm 81.102 in
Package Level 1 Height:	500.00 mm 19.685 in
Package Level 1 Width:	670.00 mm 26.378 in
Package Level 1 Units:	1 case

Technical

Operating Point Frequency / Current	Absolute Loss	Efficiency	Relative Loss
0/25 %	2143 W	93.1 %	0.4 %
0/50 %	3094 W	94.8 %	0.6 %
0/100 %	5693 W	95.2 %	1.1 %
50/25 %	2306 W	96.3 %	0.4 %
50/50 %	3445 W	97.2 %	0.6 %
50/100 %	6585 W	97.3 %	1.2 %
90/50 %	3956 W	98.2 %	0.7 %
90/100 %	8046 W	98.1 %	1.5 %

Number of Phases: 3-phase

Degree of Protection:	IP00
Enclosure Type NEMA:	Open Type
Altitude:	1000 m
Operating Humidity (RH_{amb}):	95
Sound dB (A):	72 dB(A)
Multiple Battery Information:	Lithium Coin, CR2032, 220 mAh, 3 V, 1 pc, 3 g
Frequency (f):	47.5 ... 63 Hz
Frame Size:	R10
Input Voltage (U_{in}):	380 ... 480 V
Mounting Type:	Module
Communication Protocol:	BACNET CAN DeviceNet EtherNet/IP LON MODBUS Other Bus Systems PROFIBUS PROFINET IO TCP/IP
Number of Hardware Interfaces:	Industrial Ethernet 0 Other 2 Parallel 2 PROFINET 0 RS-232 0 RS-422 0 RS-485 1 Serial TTY 0 USB 1
Includes:	Control unit PC connection
Analog Inputs:	2
Analog Outputs:	2
Number of Digital In/Outputs:	6 / 3
Output Current, Normal Use (I_n):	650 A
Output Current, Light-Overload Use (I_{LD}):	634 A
Output Current, Heavy-Duty Use (I_{HD}):	477 A
Output Power, Normal Use (P_n):	355 kW
Output Power, Light-Overload Use (P_{LD}):	355 kW
Output Power, Heavy-Duty Use (P_{HD}):	250 kW
Power Consumption (@P_{cons}):	8046 W
Apparent Power Output:	450 kV·A
Efficiency Level:	IE2
Standby Loss:	423 W
Temperature Rating:	Maximum 40 °C Minimum -15 °C

Technical UL

Output Current, Heavy-Duty Use (UL):	477 A
Output Current, Light-Overload Use (UL):	623 A
Output Current, Normal Use (UL):	650 A
Output Power, Heavy-Duty Use (UL):	400 Hp
Output Power, Light-Overload Use (UL):	500 Hp

Certificates and Declarations

Declaration of Conformity - CE:	3AXD10001818627
REACH Date:	20250905
REACH Declaration:	9AKK107992A7060
REACH Information:	True - contains substances > 0.1 mass percentage
RoHS Date:	20240508
RoHS Declaration:	3AXD10001818627
RoHS Information:	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

Environmental

SCIP:	58f22844-2faf-42d0-845e-c7388e32f3e4 Finland
WEEE Category:	4. Large Equipment (Any External Dimension More Than 50 cm)

External Classifications and Standards

ETIM 9:	EC001857 - Frequency converter =< 1 kV
ETIM 10:	EC001857 - Frequency converter =< 1 kV
UNSPSC:	39122001

Categories

Products > Drives > Low Voltage AC Drives > Industry-Specific Drives > Drives for HVAC > ACH580-04 - Drive module for HVAC

