

PRODUCT-DETAILS

ACH580-34-505A-4

LV AC ultra-low harmonic drive module for HVAC, IEC: Pn 250 kW, 505 A (ACH580-34-505A-4)



General Information

Global Commercial Alias	ACH580-34-505A-4
Product ID	3AXD50000428205
ABB Type Designation	ACH580-34-505A-4
EAN	6438177593959
Catalog Description	LV AC ultra-low harmonic drive module for HVAC, IEC: Pn 250 kW, 505 A (ACH580-34-505A-4)

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 ultra-low drive module variant provides ultimate harmonic performance, reaching even less than 3 % THDi, and exceeding the requirements set by low harmonic recommendations.

Long Description

The drive includes an active supply unit and integrated low harmonic line filter, meaning there is no need for external filters, multi-pulse arrangements or special transformers. Other features include output voltage boost and power factor correction. The built-in features significantly reduce installation time, and the intuitive HVAC specific control panel and help assistants make operation easy. The optional Bluetooth® capability enables the commissioning and monitoring of the drive from a distance. The variant comes in IP00 enclosure as standard and for cabinet installation Also, IP20 enclosure is available.

Ordering

Country of Origin	Finland (FI)
Customs Tariff Number	85044085
Invoice Description	ACH580-34-505A-4 PN: 250 kW, IN: 505 A

Made To Order	Yes
Minimum Order Quantity	1 piece
Order Multiple	1 piece
Quote Only	No
Selling Unit of Measure	piece

Container Information

Gross Volume	0.554 m³
--------------	----------

Dimensions

Product Net Weight	365 kg 804.688 lb
Product Net Depth / Length	512 mm 20.157 in
Product Net Height	1741 mm 68.543 in
Product Net Width	713 mm 28.071 in
Package Level 1 Depth / Length	1077 mm 42.402 in
Package Level 1 Height	2050 mm 80.709 in
Package Level 1 Width	650 mm 25.591 in
Package Level 1 Units	1 carton

Technical

Number of Phases	3
Degree of Protection	IP00
Enclosure Type NEMA	Open Type
Power Factor	1.00
Multiple Battery Information	Lithium Coin; CR2032; 220 mAh; 3 V; 1 pc; 3 g
Frequency (f)	47.5...63 Hz
Frame Size	R11
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, Heavy-Duty Use (I_{HD})	365 A
Output Current, Light-Overload Use (I_{LD})	480 A
Output Current, Normal Use (I_n)	505 A
Output Power, Heavy-Duty Use (P_{HD})	200 kW
Output Power, Light-Overload Use (P_{LD})	250 kW
Output Power, Normal Use (P_n)	250 kW
Apparent Power Output	350 kV·A
Efficiency Level	IE2
Standby Loss	202 W
Complete Drive Module Efficiency (61800-9-2)	

Operating Point Frequency / Current	Absolute Loss	Efficiency	Relative Loss
0/25 %	1710 W	91.9 %	0.5 %
0/50 %	2521 W	93.8 %	0.7 %
0/100 %	4729 W	94.1 %	1.4 %
50/25 %	1937 W	95.3 %	0.6 %
50/50 %	3105 W	96.1 %	0.9 %
50/100 %	6562 W	95.9 %	1.9 %
90/50 %	4353 W	96.9 %	1.2 %
90/100 %	10460 W	96.3 %	3.0 %

Ecodesign Exemption

Energy efficiency data is not provided for the drive. The low-harmonic drives are exempt from the EU ecodesign requirements (Regulation EU/2019/1781, §2.3.d).

Additional Information

Product Main Type	ACH580-34
Product Name	Frequency converter

Classifications

ETIM 8	EC001857 - Frequency converter =< 1 kV
ETIM 9	EC001857 - Frequency converter =< 1 kV
UNSPSC	39122001

Environmental

SCIP	9a4940db-cc6f-4b37-b26c-67ea8781be59 Finland (FI)
WEEE Category	4. Large Equipment (Any External Dimension More Than 50 cm)

Categories

Drives → Low Voltage AC Drives → Industry-Specific Drives → Drives for HVAC → ACH580-34 - Ultra-low harmonic drive module for HVAC

Drives → Services → Spares and Consumables → Parts

