

PRODUCT-DETAILS

ACH580-34-293A-4

LV AC ultra-low harmonic drive module for HVAC, IEC: Pn 160 kW, 293 A (ACH580-34-293A-4)



General Information	
Global Commercial Alias	ACH580-34-293A-4
Product ID	3AXD50000428175
ABB Type Designation	ACH580-34-293A-4
EAN	6438177593928
Catalog Description	LV AC ultra-low harmonic drive module for HVAC, IEC: Pn 160 kW, 293 A (ACH580-34-293A-4)
Long Description	<p>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.</p> <p>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.</p>

Ordering

Country of Origin	Finland (FI)
Customs Tariff Number	85044085
Invoice Description	ACH580-34-293A-4 PN: 160 kW, IN: 293 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
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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})	246 A
Output Current, Light-Overload Use (I_{LD})	278 A
Output Current, Normal Use (I_n)	293 A
Output Power, Heavy-Duty Use (P_{HD})	132 kW
Output Power, Light-Overload Use (P_{LD})	160 kW
Output Power, Normal Use (P_n)	160 kW
Apparent Power Output	203 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 %	1006 W	92.0 %	0.5 %
0/50 %	1345 W	94.3 %	0.7 %
0/100 %	2232 W	95.1 %	1.1 %
50/25 %	1105 W	95.4 %	0.5 %
50/50 %	1573 W	96.6 %	0.8 %
50/100 %	2902 W	96.8 %	1.4 %
90/50 %	2039 W	97.5 %	1.0 %
90/100 %	4300 W	97.3 %	2.1 %

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).
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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

