

PRODUCT-DETAILS

# ACQ580-31-124A-4

LV AC wall-mounted ultra-low harmonic drive  
for water and wastewater, UL: Pld 100 Hp, 124  
A, 480 V (ACQ580-31-124A-4)



General Information	
Global Commercial Alias	ACQ580-31-124A-4
Product ID	3AXD50000429011
ABB Type Designation	ACQ580-31-124A-4
EAN	6438177594451
Catalog Description	LV AC wall-mounted ultra-low harmonic drive for water and wastewater, UL: Pld 100 Hp, 124 A, 480 V (ACQ580-31-124A-4)
Long Description	The ACQ580-31 drives deliver innovative pump features for the water and wastewater industry, securing energy efficient flow of water and wastewater in your pumping solutions. The ultra-low harmonic variant provides ultimate harmonic performance, reaching even less than 3 % THDi, and exceeding the requirements set by low harmonic standards and recommendations. 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. This robust and compact wall-mounted drive has built-in pump application functionality such as sensorless flow calculation, multipump control, level control, soft pipe fill, dry run protection, quick ramps and a solution for keeping the impeller of the pump clean. Usability is further enhanced with the intuitive Hand-Off-Auto control panel, the PC tool Drive composer and an optional Bluetooth® control panel. The ultra-low harmonic wall-mounted variant comes in IP21 enclosure as standard. Also, IP55 and flange mounting units are available.

Country of Origin	Finland (FI)
Customs Tariff Number	85044084
Invoice Description	ACQ580-31-124A-4 PN: 75 kW, IN: 145 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	126.801 dm³
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Dimensions

Product Net Weight	118 kg 260.146 lb
Product Net Depth / Length	438 mm 17.244 in
Product Net Height	965 mm 37.992 in
Product Net Width	300 mm 11.811 in
Package Level 1 Depth / Length	1164 mm 45.827 in
Package Level 1 Height	654 mm 25.748 in
Package Level 1 Width	502 mm 19.764 in
Package Level 1 Units	1 carton

Technical

Number of Phases	3
Degree of Protection	IP21
Enclosure Type NEMA	Type1
Altitude	1000 m
Power Factor	1.00
Sound dB (A)	68.0 dB(A)
Multiple Battery Information	Lithium Coin; CR2032; 220 mAh; 3 V; 1 pc; 3 g
Frequency (f)	47.5 ... 63 Hz
Frame Size	R8
Input Voltage (U <sub>in</sub> )	380 ... 480 V
Mounting Type	Wall-mounted
Communication Protocol	CAN DeviceNet EtherNet/IP 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
Apparent Power Output	103 kV·A
Efficiency Level	IE2
Standby Loss	83 W
Complete Drive Module Efficiency (61800-9-2)	

Operating Point Frequency / Current	Absolute Loss	Efficiency	Relative Loss
0/25 %	467 W	92.6 %	0.5 %
0/50 %	610 W	94.8 %	0.6 %
0/100 %	992 W	95.7 %	1.0 %
50/25 %	520 W	95.7 %	0.5 %
50/50 %	721 W	96.9 %	0.7 %
50/100 %	1262 W	97.2 %	1.2 %
90/50 %	919 W	97.8 %	0.9 %
90/100 %	2197 W	97.3 %	2.1 %

Temperature Rating	Maximum 55 °C Minimum -15 °C
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	ACQ580-31
Product Name	Frequency converter

Classifications

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

Environmental

WEEE Category	4. Large Equipment (Any External Dimension More Than 50 cm)
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## Categories

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Drives → Low Voltage AC Drives → Industry-Specific Drives → Drives for water → ACQ580-31 - Wall-mounted ultra-low harmonic drive for water and wastewater

Drives → Services → Spares and Consumables → Parts

