


Reference No. STR L2572


Our ref. HEL-CERT220500859-02

STATEMENT OF TEST RESULTS

Product	Air-cooled frequency converter
Tested on request of	ABB Oy Drives, P.O. Box 184, FI – 00381 HELSINKI, FINLAND
Name and address of the manufacturer	ABB Oy Drives, Hiomotie 13, FI – 00380 HELSINKI, FINLAND
Name and address of the factory	See page 2
Rating and principal characteristics	Class I. For voltage, current and frequency ratings, see pages 3 and 4.
Trademark (if any)	
Type	ACH580-31, ACQ580-31 See pages 3 and 4 for type code details.
Additional information (if any)	See page 2.
Sufficient samples of the product have been tested and found to be in conformity with the standard (number and edition)	IEC 61800-5-1:2007 + A1:2016 EN 61800-5-1:2007 + A1:2017
As shown in the test report (reference No.)	HELES2111001176-3, HELES2111001176-4, HELES2111001176-5 and HELES2201000059-1

This statement of test results is based on tested samples of the product. Samples of the product have been tested and found to be in conformity with above mentioned standard(s) which are harmonised under the Low Voltage Directive (2014/35/EU).

This statement of test results is not a FI certificate thus not giving the right to use the FI or SGS FI mark on products, its packaging or any marketing material or activities.

Date of issue	2022-09-12
	SGS Fimko Ltd
Signature	
	Timo Leismala Team Leader, EMC & RF

Name and address of the factories

ABB Oy Drives
Hiomotie 13
FI-00380 Helsinki, Finland

ABB Inc., Drives & Power Products
16250 West Glendale Drive
WI 53151-2840, New Berlin, Wisconsin,
United States of America

ABB Beijing Drive Systems Co Ltd.
No1, Blk D, A-10, Jiuxianqiao Beilu
Chaoyang District, Beijing, 100015, China

Additional information (if nay)
Air-cooled frequency converters / drives:

ACH580-31 (air-cooled frequency converter for HVAC applications)
ACQ580-31 (air-cooled frequency converter for water applications)

Ambient temperature during operation (°C) with/without derating:
+40°C without output current de-rating

ACx580 models:

IP21 and IP55: +40 °C – +50 °C de-rating of 1 % per each 1 °C.

Additional information:

The fuses or circuit breakers can be alternatively used to protect against overcurrent and short-circuit conditions, ref. hardware manual for details.

Frame sizes R3 and R6:

Non-corner earthed TN/TT/IT networks: Max. 4000 m

Frame size R8:

Max. operation altitude 4000 m (TN, TT: neutral earthed network systems; IT: non-corner earthed network system)

Max. operation altitude 2000 m (TN, TT, IT: corner earthed network systems)

IP classes:

IP21 or IP55. Frame size R8 cabinet installation (option +P940): IP20

Rating table:

IEC ratings							
Drive type	Frame size	U _N = 3~400 V AC			U _N = 3~480 V AC		
		Input	Output		Input	Output	
		I ₁ (A)	I ₂ (A)	P _N (kW)	I ₁ (A)	I _{LD} (A)	P _{LD} (hp)
ACx580-31-09A5-4	R3	8	9,4	4	7	7,6	5
ACx580-31-12A7-4	R3	10	12,6	5,5	9	12	7,5
ACx580-31-018A-4	R3	14	17	7,5	12	14	10
ACx580-31-026A-4	R3	20	25	11	17	23	15
ACx580-31-033A-4	R6	27	32	15	24	27	20
ACx580-31-039A-4	R6	33	38	18,5	29	34	25
ACx580-31-046A-4	R6	40	45	22	34	44	30
ACx580-31-062A-4	R6	51	62	30	44	52	40
ACx580-31-073A-4	R6	63	73	37	54	65	50
ACx580-31-088A-4	R6	76	88	45	66	77	60

With f₁ = 50/60 Hz, U₂ = 3~0...U₁ and f₂ = 0...500 Hz, I_{cc} = 100 kA.

With “-x” = “-H” or “-Q”.

UL ratings				
Drive type	Frame size	U _N = 3~480 V AC		
		Input	Output	
		I ₁ (A)	I _{LD} (A)	P _{LD} (hp)
ACx580-31-07A6-4	R3	7	7,6	5
ACx580-31-012A-4	R3	9	12	7,5
ACx580-31-014A-4	R3	12	14	10
ACx580-31-023A-4	R3	17	23	15
ACx580-31-027A-4	R6	24	27	20
ACx580-31-034A-4	R6	29	34	25
ACx580-31-044A-4	R6	34	44	30
ACx580-31-052A-4	R6	44	52	40
ACx580-31-065A-4	R6	54	65	50
ACx580-31-077A-4	R6	66	77	60

With f₁ = 50/60 Hz, U₂ = 3~0...U₁ and f₂ = 0...500 Hz, I_{cc} = 100 kA.

With “-x” = “-H” or “-Q”.

Rating table:

Model ACx580- 31-	Frame size	IEC ratings $U_N = 400\text{ V}$				IEC ratings $U_N = 480\text{ V}$			
		I1 / A	S _N / kVA	I2 / A	P _N / kW	I1 / A	S _N / kVA	I _{LD} / A	P _{LD} / hp
-106A-4	R8	94	73,4	106	55	82	79,8	96	75
-145A-4	R8	128	100,5	145	75	111	103,1	124	100
-169A-4	R8	154	117,1	169	90	134	129,7	156	125
-206A-4	R8	188	142,7	206	110	163	149,6	180	150

with f1: 50/60 Hz, f2: 0...500 Hz and U2: 3~ 0...U1 V.

Model ACx580- 31-	Frame size	UL ratings $U_N = 480\text{ V}$			
		I1 / A	S _N / kVA	I _{LD} / A	P _{LD} / hp
-96A-4	R8	82	73	96	75
-124A-4	R8	111	100	124	100
-156A-4	R8	134	117	156	125
-180A-4	R8	163	143	180	150

with f1: 50/60 Hz, f2: 0...500 Hz and U2: 3~ 0...U1 V.

With "-x" = "-H" or "-Q".