

# Reference No. STR L2571

Our ref. HEL-CERT220500859-01

# 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 to 4.

Trademark (if any)

ABB

Type ACS880-11 and ACS880-31

See pages 3 to 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)

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IEC 61800-5-1:2007 + AMD1:2016 EN 61800-5-1:2007 + A1:2017

As shown in the test report (reference No.) HELES2111001176-1, HELES2111001176-2, 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** 2022-09-09

**SGS Fimko Ltd** 

Signature

Tim Minnels

Timo Leismala

Team Leader, EMC & RF

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## Name and address of the factory

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 any)

# Air-cooled frequency converters / drives:

ACS880-11 (air-cooled regenerative frequency converter)
ACS880-31 (air-cooled low harmonic frequency converter)

# Ambient temperature during operation (°C) with/without derating:

+40°C without output current de-rating

## ACS880 models:

IP21 and IP55: +40 °C - +55 °C de-rating of 1 % per each 1 °C.

#### Exceptions:

ACS880-11-206A-3 IP55 and ACS880-11-180A-5 IP55 models: +55 °C with 1,5 % derating of rated output current per 1 K temperature increase above +40 °C. ACS880-11-...+X5663: +40 °C - +45 °C 95 % of rated output current, +45 °C - +50 °C 90 % of rated output current, +50 °C - +55 °C 85 % of rated output current.

# 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

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Rating table:

Drive type	Frame size	IEC ratings U <sub>N</sub> = 3~400 V AC						
		Input	Output					
		I1 (A)	I2 (A)	S <sub>N</sub> (kVA)	P <sub>N</sub> (kW)			
ACS880-x1-09A4-3	R3	104505455555 8 105056555555555555555555555555555555555	10	6,9	4			
ACS880-x1-12A6-3	R3	10	12,9	8,9	5,5			
ACS880-x1-017A-3	R3	14	17	12	7,5			
ACS880-x1-025A-3	R3	20	25	17	11			
ACS880-x1-032A-3	R6	27	32	22	15			
ACS880-x1-038A-3	R6	33	38	26	18,5			
ACS880-x1-045A-3	R6	40	45	31	22			
ACS880-x1-061A-3	\$65656565656565656565656565656565656565	51	61	3656 42	30			
ACS880-x1-072A-3	R6.5635355555555555555555555555555555555	63	72	56 0565050505 56 0565050505 56 0565050505	37			
ACS880-x1-087A-3	R6 965656565	76	87	60	45			

With f1 = 50/60 Hz, U2 =  $3\sim0...$ U1 and f2 = 0...500 Hz, Icc = 100 kA. With "-x1" = "-11" or "-31".

Drive type	Frame size	IEC ratings U <sub>N</sub> = 3~500 V AC			UL ratings U <sub>N</sub> = 3~480 V AC		
		Input	Output		Input	Input Output	
		I1 (A)	I2 (A)	P <sub>N</sub> (kW)	I1 (A)	ILD (A)	P <sub>LD</sub> (hp)
ACS880-x1-07A6-5	R3	7	7,6	4	5656565 565656565 5656565656 7	7,6	5
ACS880-x1-11A0-5	R3	9	11	5,5	\$6\$6\$6\$6\$ \$6\$6\$6\$6\$ \$6\$6\$6\$6\$	11	7,5
ACS880-x1-014A-5	R3	12	14	7,5	12	14	10
ACS880-x1-021A-5	R3	17	21	6 6565656565656565656565656565656565656	sgsgsgsgsgsgsgsgsgsgsgsgsgsgsgsgsgsgsg	21	15
ACS880-x1-027A-5	R6	24	27	15	24	27	20
ACS880-x1-034A-5	R6	29	34	18,5	29	34	25
ACS880-x1-040A-5	R6	34	40	22	34	40	30
ACS880-x1-052A-5	R6	44	52	30	44	52	40
ACS880-x1-065A-5	R6	54	65	37	54	565 5656 5656 66565 66565	50
ACS880-x1-077A-5	R6	66	77	45	66	5656565 565656565 565656565 565656565	60

With f1 = 50/60 Hz, U2 =  $3\sim0...$ U1 and f2 = 0...500 Hz, Icc = 100 kA. With "-x1" = "-11" or "-31".

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# Rating table:

Drive type ACS880-	Frame size	IEC ratings U <sub>N</sub> = 500 V				UL ratings U <sub>N</sub> = 480 V			
11/31-		I1 / A	S <sub>N</sub> / kVA	12 / A	P <sub>N</sub> /kW	I1 / A	S <sub>N</sub> / kVA	I <sub>LD</sub> / A	P <sub>LD</sub> / hp
-101A-5	R8	71	87	101	55	74	87	96	75
-124A-5	R8	96	107	124	75	100	107	124	100
-156A-5	R8	115	137	156	90	120	137	156	125
-180A-5	R8	141	156	180	110	147	156	180	150

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

Drive Frame	Input ratings			Nominal use		Cyclic load use				
type: ACS880- 11	size	I1 / A (U1 =	I1 / A (U1 =	Imax / A	S <sub>N</sub> / kVA	12 / A	P <sub>N</sub> / kW	Nominal	Accelera tion	Deceler ation
+X5663		380V)	500V)	(t < 2s)	05050505050505050505050505050505050505		865 865 865 865 865 865(	I2 / A	I2 / A	I2 / A
-119A-5	R8	125	95	264	82	119	72	100	240	60
-179A-5	R8	187	142	396	124	179	110	150	360	90

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

Model ACS880- 11/31-	Frame size	IEC ratings U <sub>N</sub> = 400 V					
11/31-		I1 / A	S <sub>N</sub> / kVA	I2 / A	P <sub>N</sub> / kW		
-105A-3	R8	88	73	105	55		
-145A-3	R8	120	100	145	75		
-169A-3	R8	144	117	169	90		
-206A-3	R8	176	143	206	110		

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

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