

Wall-mounted single drives

ACS880-01

—
01
ACS880-01
frame size R1, IP21
—
02
ACS880-01
frame size R5, IP55



01



02

Compact package for simple installation

The ACS880-01 comes in one compact package for easy installation and commissioning. The drive supports wall-mounting as standard and cabinet mounting as an option. The drive offering includes enclosure classes up to IP55, making it suitable for most environments and installations.

ACS880-01 drives have all the essential features built-in. These features include as standard a choke for harmonic filtering as well as options like a brake chopper, EMC filter and communication protocol adapter, functional safety and I/O extension modules. The extensive range of options also includes external output filters and brake resistors.

The ACS880-01 is also available with marine type approval from various key classification bodies.

Wall-mounted ACS880-01 drives

- Power ratings: 0.55 to 250 kW
- Enclosure classes: IP20 for cabinet mounting, IP21 (as standard) for wall-mounting and IP55 for dusty and wet environments

Main options:

- C2 and C3 EMC filters, see page 73
- Brake chopper (as standard in frames R1 to R4), see page 82
- Brake resistor, see page 82
- Marine type approval from various key classification bodies
- I/O extension modules, see page 63
- Communication protocol adapters, see page 63
- Speed feedback interfaces, see page 65
- Functional safety modules, see page 70
- Remote monitoring tool, see page 66
- Application specific software, see page 20
- Du/dt filters, see page 90
- Sine filters, see page 76
- Flange (push through) mounting

The drives have an extensive selection of built-in features and options. See page 100.

Highlights

- Wide power range supporting wall-mounting, 0.55 to 250 kW
- Enclosure classes up to IP55
- Compact, single package with all the essential features built-in
- Easy installation for different environments
- Robust and reliable design
- Optional marine type approved version

Ratings, types and voltages

Wall-mounted drives, ACS880-01

$U_N = 230\text{ V}$ (range 208 to 240 V). The power ratings are valid at nominal voltage 230 V (0.55 to 75 kW).

Drive type	Frame size	Nominal ratings			Light overload use		Heavy-duty use		Noise level (dB(A))	Heat dissipation ^{*)} (W)	Air flow (m ³ /h)
		I_N (A)	I_{MAX} (A)	P_N (kW)	I_{Ld} (A)	P_{Ld} (kW)	I_{Hd} (A)	P_{Hd} (kW)			
ACS880-01-04A6-2	R1	4.6	6.3	0.75	4.4	0.75	3.7	0.55	50	61	44
ACS880-01-06A6-2	R1	6.6	7.8	1.1	6.3	1.1	4.6	0.75	50	85	44
ACS880-01-07A5-2	R1	7.5	11.2	1.5	7.1	1.5	6.6	1.1	50	96	44
ACS880-01-10A6-2	R1	10.6	12.8	2.2	10.1	2.2	7.5	1.5	50	149	44
ACS880-01-16A8-2	R2	16.8	18.0	4.0	16.0	4.0	10.6	2.2	59	210	88
ACS880-01-24A3-2	R2	24.3	28.6	5.5	23.1	5.5	16.8	4	59	368	88
ACS880-01-031A-2	R3	31.0	41	7.5	29.3	7.5	24.3	5.5	60	354	134
ACS880-01-046A-2	R4	46	64	11	44	11	38	7.5	64	541	134
ACS880-01-061A-2	R4	61	76	15	58	15	45	11	64	804	280
ACS880-01-075A-2	R5	75	104	18.5	71	18.5	61	15	64	925	280
ACS880-01-087A-2	R5	87	122	22	83	22	72	18.5	64	1142	280
ACS880-01-115A-2	R6	115	148	30	109	30	87	22	68	1362	435
ACS880-01-145A-2	R6	145	178	37	138	37	105	30	68	1935	435
ACS880-01-170A-2	R7	170	247	45	162	45	145	37	67	1968	450
ACS880-01-206A-2	R7	206	287	55	196	55	169	45	67	2651	450
ACS880-01-274A-2	R8 ³⁾	274	362	75	260	75	213	55	68	3448	550

^{*)} Heat dissipation value is a reference for cabinet thermal design. According to Ecodesign regulations.

$U_N = 400\text{ V}$ (range 380 to 415 V). The power ratings are valid at nominal voltage 400 V (0.55 to 250 kW).

Drive type	Frame size	Nominal ratings			Light overload use		Heavy-duty use		Noise level (dB(A))	Heat dissipation ^{*)} (W)	Air flow (m ³ /h)
		I_N (A)	I_{MAX} (A)	P_N (kW)	I_{Ld} (A)	P_{Ld} (kW)	I_{Hd} (A)	P_{Hd} (kW)			
ACS880-01-02A4-3	R1	2.4	3.1	0.75	2.3	0.75	1.8	0.55	50	43	44
ACS880-01-03A3-3	R1	3.3	4.1	1.1	3.1	1.1	2.4	0.75	50	52	44
ACS880-01-04A0-3	R1	4.0	5.6	1.5	3.8	1.5	3.3	1.1	50	59	44
ACS880-01-05A6-3	R1	5.6	6.8	2.2	5.3	2.2	4.0	1.5	50	78	44
ACS880-01-07A2-3	R1	8.0	9.5	3	7.6	3	5.6	2.2	50	112	44
ACS880-01-09A4-3	R1	10	12.2	4	9.5	4	8.0	3	50	146	44
ACS880-01-12A6-3	R1	12.9	16	5.5	12	5.5	10	4	50	217	44
ACS880-01-017A-3	R2	17	21	7.5	16	7.5	12.6	5.5	59	235	88
ACS880-01-025A-3	R2	25	29	11	24	11	17	7.5	59	412	88
ACS880-01-032A-3	R3	32	42	15	30	15	25	11	60	400	134
ACS880-01-038A-3	R3	38	54	18.5	36	18.5	32	15	60	515	134
ACS880-01-045A-3	R4	45	64	22	43	22	38	18.5	64	526	134
ACS880-01-061A-3	R4	61	76	30	58	30	45	22	64	818	280
ACS880-01-072A-3	R5	72	104	37	68	37	61	30	64	841	280
ACS880-01-087A-3	R5	87	122	45	83	45	72	37	64	1129	280
ACS880-01-105A-3	R6	105	148	55	100	55	87	45	68	1215	435
ACS880-01-145A-3	R6	145	178	75	138	75	105	55	68	1962	435
ACS880-01-169A-3	R7	169	247	90	161	90	145	75	67	2042	450
ACS880-01-206A-3	R7	206	287	110	196	110	169	90	67	2816	450
ACS880-01-246A-3	R8	246	350	132	234	132	206	110	68	3026	550
ACS880-01-293A-3	R8 ³⁾	293	418	160	278	160	246 ¹⁾	132	68	3630	550
ACS880-01-363A-3	R9	363	498	200	345	200	293	160	70	4688	1150
ACS880-01-430A-3	R9	430	545	250	400	200	363 ²⁾	200	70	5797	1150

^{*)} Heat dissipation value is a reference for cabinet thermal design. According to Ecodesign regulations.

$U_N = 500 \text{ V}$ (range 380 to 500 V). The power ratings are valid at nominal voltage 500 V (0.55 to 250 kW).

Drive type	Frame size	Nominal ratings			Light overload use		Heavy-duty use		Noise level (dB(A))	Heat dissipation ^{*)} (W)	Air flow (m ³ /h)
		I_N (A)	I_{MAX} (A)	P_N (kW)	I_{Ld} (A)	P_{Ld} (kW)	I_{Hd} (A)	P_{Hd} (kW)			
ACS880-01-02A1-5	R1	2.1	3.1	0.75	2.0	0.75	1.7	0.55	50	42	44
ACS880-01-03A0-5	R1	3.0	4.1	1.1	2.8	1.1	2.1	0.75	50	50	44
ACS880-01-03A4-5	R1	3.4	5.6	1.5	3.2	1.5	3.0	1.1	50	55	44
ACS880-01-04A8-5	R1	4.8	6.8	2.2	4.6	2.2	3.4	1.5	50	71	44
ACS880-01-05A2-5	R1	5.2	9.5	3	4.9	3	4.8	2.2	50	76	44
ACS880-01-07A6-5	R1	7.6	12.2	4	7.2	4	5.2	3	50	110	44
ACS880-01-11A0-5	R1	11	16	5.5	10.4	5.5	7.6	4	50	180	44
ACS880-01-014A-5	R2	14	21	7.5	13	7.5	11	5.5	59	191	88
ACS880-01-021A-5	R2	21	29	11	19	11	14	7.5	59	330	88
ACS880-01-027A-5	R3	27	42	15	26	15	21	11	60	326	134
ACS880-01-034A-5	R3	34	54	18.5	32	18.5	27	15	60	454	134
ACS880-01-040A-5	R4	40	64	22	38	22	34	19	64	424	134
ACS880-01-052A-5	R4	52	76	30	49	30	40	22	64	600	280
ACS880-01-065A-5	R5	65	104	37	62	37	52	30	64	715	280
ACS880-01-077A-5	R5	77	122	45	73	45	65	37	64	916	280
ACS880-01-096A-5	R6	96	148	55	91	55	77	45	68	1157	435
ACS880-01-124A-5	R6	124	178	75	118	75	96	55	68	1673	435
ACS880-01-156A-5	R7	156	247	90	148	90	124	75	67	1840	450
ACS880-01-180A-5	R7	180	287	110	171	110	156	90	67	2281	450
ACS880-01-240A-5	R8 ⁴⁾	240	350	132	228	132	180	110	68	2912	550
ACS880-01-260A-5	R8 ³⁾	260	418	160	247	160	240 ¹⁾	132	68	3325	550
ACS880-01-361A-5	R9	361	542	200	343	200	302	200	70	4781	1150
ACS880-01-414A-5	R9	414	542	250	393	250	361 ²⁾	200	70	5672	1150

^{*)} Heat dissipation value is a reference for cabinet thermal design. According to Ecodesign regulations.

$U_N = 690 \text{ V}$ (range 525 to 690 V). The power ratings are valid at nominal voltage 690 V (4 to 250 kW).

Drive type	Frame size	Nominal ratings			Light overload use		Heavy-duty use		Noise level (dB(A))	Heat dissipation ^{*)} (W)	Air flow (m ³ /h)
		I_N (A)	I_{MAX} (A)	P_N (kW)	I_{Ld} (A)	P_{Ld} (kW)	I_{Hd} (A)	P_{Hd} (kW)			
ACS880-01-07A4-7	R3	7.4	12.2	5.5	7.0	5.5	5.6	4	60	101	134
ACS880-01-09A9-7	R3	9.9	18	7.5	9.4	7.5	7.4	5.5	60	128	134
ACS880-01-14A3-7	R3	14.3	22	11	13.6	11	9.9	7.5	60	189	134
ACS880-01-019A-7	R3	19	28.9	15	18.1	15	14.3	11	60	271	134
ACS880-01-023A-7	R3	23	38	18.5	21.9	18.5	19	15	60	338	134
ACS880-01-027A-7	R3	27	46	22	25.7	22	23	18.5	60	426	134
ACS880-01-035A-7	R5	35	64	30	33	30	26	22	64	416	280
ACS880-01-042A-7	R5	42	70	37	40	37	35	30	64	524	280
ACS880-01-049A-7	R5	49	71	45	47	45	42	37	64	650	280
ACS880-01-061A-7	R6	61	104	55	58	55	49	45	68	852	435
ACS880-01-084A-7	R6	84	124	75	80	75	61	55	68	1303	435
ACS880-01-098A-7	R7	98	168	90	93	90	84	75	67	1416	450
ACS880-01-119A-7	R7	119	198	110	113	110	98	90	67	1881	450
ACS880-01-142A-7	R8	142	250	132	135	132	119	110	68	1970	550
ACS880-01-174A-7	R8 ³⁾	174	274	160	165	160	142	132	68	2670	550
ACS880-01-210A-7	R9	210	384	200	200	200	174	160	70	2903	1150
ACS880-01-271A-7	R9	271	411	250	257	250	210	200	70	4182	1150

^{*)} Heat dissipation value is a reference for cabinet thermal design. According to Ecodesign regulations.

Nominal ratings	
I_N	Rated current available continuously without overloadability at 40 °C.
P_N	Typical motor power in no-overload use.
Maximum output current	
I_{max}	Maximum output current. Available for 10 seconds at start, then as long as allowed by drive temperature.
Light-overload use	
I_{Ld}	Continuous current allowing 110% I_{Ld} for 1 minute every 5 minutes at 40 °C.
P_{Ld}	Typical motor power in light-overload use.
Heavy-duty use	
I_{Hd}	Continuous current allowing 150% I_{Hd} for 1 minute every 5 minutes at 40 °C.
P_{Hd}	Typical motor power in heavy-duty use.

The ratings apply at 40 °C ambient temperature. At higher temperatures (up to 55 °C) the derating is 1%/1 °C.

- ¹⁾ 130% overload
- ²⁾ 125% overload
- ³⁾ For drives with enclosure class IP55 the ratings apply at 40 °C ambient temperature .
At higher temperature the derating is from 40 to 45 °C 1%/1 °C and 45 to 55 °C 2.5%/1 °C.
- ⁴⁾ For drives with enclosure class IP55 the ratings apply at 40 °C ambient temperature.
At higher temperature the derating is from 40 to 50 °C 1%/1 °C and 50 to 55 °C 2.5%/1 °C.

