
TECHNICAL CATALOG

Low voltage AC drives

ABB general purpose drives
ACS580, 1 to 350 hp



Ratings, types and voltages

Wall-mounted drives, ACS580-01

3-phase, $U_N = 440, 460, 480$ V

Type code	Frame Size	Max. output current	Light overload use		Heavy-duty use	
		I_{max} (A)	I_{Ld} (A)	P_{Ld} (hp)	I_{Hd} (A)	P_{Hd} (hp)
ACS580-01-02A1-4	R1	2.9	2.1	1	1.6	0.75
ACS580-01-03A0-4	R1	3.8	3	1.5	2.1	1
ACS580-01-03A5-4	R1	5.4	3.5	2	3	1.5
ACS580-01-04A8-4	R1	6.1	4.8	3	3.4	2
ACS580-01-06A0-4	R1	7.2	6	3	4	3
ACS580-01-07A6-4	R1	8.6	7.6	5	4.8	3
ACS580-01-012A-4	R1	11.4	12	7.5	7.6	5
ACS580-01-014A-4	R2	19.8	14	10	11	7.5
ACS580-01-023A-4	R2	25.2	23	15	14	10
ACS580-01-027A-4	R3	37.8	27	20	21	15
ACS580-01-034A-4	R3	48.6	34	25	27	20
ACS580-01-044A-4	R3	61.2	44	30	34	25
ACS580-01-052A-4	R4	76	52	40	40	30
ACS580-01-065A-4	R4	104	65	50	52	40
ACS580-01-077A-4 †	R4	122	77	60	65	50
ACS580-01-078A-4	R5	122	77	60	65	50
ACS580-01-096A-4	R5	148	96	75	77	60
ACS580-01-124A-4	R6	178	124	100	96	75
ACS580-01-156A-4	R7	247	156	125	124	100
ACS580-01-180A-4	R7	287	180	150	156	125
ACS580-01-240A-4	R8	350	240	200	180	150
ACS580-01-260A-4	R8	418	260	200	240*	150
ACS580-01-302A-4 †	R8	TBD	302	250	260	200
ACS580-01-361A-4	R9	542	361	300	302	250
ACS580-01-414A-4	R9	542	414	350	361**	300

† Coming soon

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 2 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 10 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 10 minutes at 40 °C.
 * Continuous current allowing 130% I_{Hd} for 1 minute every 10 minutes at 40 °C.
 ** Continuous current allowing 125% I_{Hd} for 1 minute every 10 minutes at 40 °C.

P_{Hd} Typical motor power in heavy-duty use.

The ratings apply for the frames R1 to R9 up to +40 °C in enclosure class 21.

For derating at higher altitudes, temperatures, switching frequencies or enclosure classes, see the HW manuals, document codes: 3AXD50000018826 and 3AXD50000015497.

Cooling and fuses

Cooling

ACS580 drives are fitted with variable-speed cooling air fans. The cooling air must be free from corrosive materials and not exceed the maximum ambient temperature of 40°C for frames R1 to R9 (50°C with derating). The speed-controlled fans cool the drive only when needed, which reduces overall noise level and energy consumption.

Fuse connections

Standard fuses can be used with ABB general purpose drives. For input fuses, see the table below.

Wall-mounted drives, ACS580-01

Cooling air flow and recommended input protection fuses for 380 to 415 V units										
Type designation	Frame size	Cooling Air Flow 380 to 480V units					Recommended UL Input Protection fuses			
		Heat dissipation*		Air flow		Max. noise level**	I _N	Voltage rating	Bussmann type***	UL class
		W	BTU/Hr	m3/h	ft3/hr					
ACS580-01-02A1-4	R1	45	155	34	20	55	15	600	JJS-15	T
ACS580-01-03A0-4	R1	55	187	34	20	55	15	600	JJS-15	T
ACS580-01-03A5-4	R1	66	224	34	20	55	15	600	JJS-15	T
ACS580-01-04A8-4	R1	84	288	34	20	55	15	600	JJS-15	T
ACS580-01-06A0-4	R1	106	362	50	29	55	15	600	JJS-15	T
ACS580-01-07A6-4	R1	133	454	50	29	55	15	600	JJS-15	T
ACS580-01-012A-4	R1	174	593	50	29	55	15	600	JJS-15	T
ACS580-01-014A-4	R2	228	777	128	75	66	30	600	JJS-30	T
ACS580-01-023A-4	R2	322	1100	128	75	66	30	600	JJS-30	T
ACS580-01-027A-4	R3	430	1469	179	105	70	40	600	JJS-40	T
ACS580-01-034A-4	R3	525	1791	179	105	70	50	600	JJS-50	T
ACS580-01-044A-4	R3	619	2114	179	105	70	60	600	JJS-60	T
ACS580-01-052A-4	R4	835	2852	134	79	69	80	600	JJS-80	T
ACS580-01-065A-4	R4	1024	3497	134	79	69	90	600	JJS-90	T
ACS580-01-077A-4 [†]	R4	1240	4235	139	82	63	110	600	JJS-110	T
ACS580-01-078A-4	R5	1240	4235	139	82	63	110	600	JJS-110	T
ACS580-01-096A-4	R5	1510	5157	139	82	63	150	600	JJS-150	T
ACS580-01-124A-4	R6	1476	5041	435	256	67	200	600	JJS-200	T
ACS580-01-156A-4	R7	1976	6748	450	265	67	225	600	JJS-225	T
ACS580-01-180A-4	R7	2346	8012	450	265	67	300	600	JJS-300	T
ACS580-01-240A-4	R8	3336	11393	550	324	65	350	600	JJS-350	T
ACS580-01-260A-4	R8	3936	13422	550	324	65	400	600	JJS-400	T
ACS580-01-302A-4 [†]	R8	4836	16516	1150	677	68	500	600	JJS-500	T
ACS580-01-361A-4	R9	4836	16516	1150	677	68	500	600	JJS-500	T
ACS580-01-414A-4	R9	6036	20614	1150	677	68	600	600	JJS-600	T

[†] Coming soon

* Heat dissipation value is a reference for cabinet thermal design

** The maximum noise level is at full fan speed. When the drive is not operating at full load and at maximum ambient temperature the noise level is lower.

***ABB does not require Bussmann brand fuses. Fuses which meet the appropriate UL class type, current rating, and are rated at 600V, 200 kA may be used.