

ABB INDUSTRIAL DRIVES

ACS880-01 drives (0.55 to 250 kW, 0.75 to 350 hp)

Hardware manual



Technical data

■ Ratings

Drive type	Internal brake chopper		Example brake resistor(s)			
	P_{brcont}	R_{min}	Type	R	E_R	P_{Rcont}
	kW	ohm		ohm	kJ	kW
$U_N = 230\text{ V}$						
ACS880-01-04A6-2	0.75	65	JBR-03	80	40	0.14
ACS880-01-06A6-2	1.1	65	JBR-03	80	40	0.14
ACS880-01-07A5-2	1.5	65	JBR-03	80	40	0.14
ACS880-01-10A6-2	2.2	65	JBR-03	80	40	0.14
ACS880-01-16A8-2	4.0	18	SACE15RE22	22	420	2
ACS880-01-24A3-2	5.5	18	SACE15RE22	22	420	2
ACS880-01-031A-2	7.5	13	SACE15RE13	13	435	2
ACS880-01-046A-2	11	12	SACE15RE13	13	435	2
ACS880-01-061A-2	11	12	SACE15RE13	13	435	2
ACS880-01-075A-2	18.5	6	SAFUR90F575	8	1800	4.5
ACS880-01-087A-2	22	6	SAFUR90F575	8	1800	4.5
ACS880-01-115A-2	30	3.5	SAFUR125F500	4	3600	9
ACS880-01-145A-2	37	3.5	SAFUR125F500	4	3600	9
ACS880-01-170A-2	45	2.4	SAFUR200F500	2.7	5400	13.5
ACS880-01-206A-2	55	2.4	SAFUR200F500	2.7	5400	13.5
ACS880-01-274A-2	75	1.8	SAFUR200F500	2.7	5400	13.5
$U_N = 400\text{ V}$						
ACS880-01-02A4-3	0.75	78	JBR-03	80	40	0.14
ACS880-01-03A3-3	1.1	78	JBR-03	80	40	0.14
ACS880-01-04A0-3	1.5	78	JBR-03	80	40	0.14
ACS880-01-05A6-3	2.2	78	JBR-03	80	40	0.14
ACS880-01-07A2-3	3.0	78	JBR-03	80	40	0.14
ACS880-01-09A4-3	4.0	78	JBR-03	80	40	0.14
ACS880-01-12A6-3	5.5	78	JBR-03	80	40	0.14
ACS880-01-017A-3	7.5	39	SACE08RE44	44	210	1
ACS880-01-025A-3	11	39	SACE08RE44	44	210	1
ACS880-01-032A-3	15	19	SACE15RE22	22	420	2
ACS880-01-038A-3	18.5	19	SACE15RE22	22	420	2
ACS880-01-045A-3	22	13	SACE15RE13	13	435	2
ACS880-01-061A-3	22	13	SACE15RE13	13	435	2
ACS880-01-072A-3	37	8	SAFUR90F575	8	1800	4.5
ACS880-01-087A-3	45	8	SAFUR90F575	8	1800	4.5
ACS880-01-105A-3	55	5.4	SAFUR80F500	6	2400	6
ACS880-01-145A-3	75	5.4	SAFUR80F500	6	2400	6

Drive type	Internal brake chopper		Example brake resistor(s)			
	P_{brcont}	R_{min}	Type	R	E_R	P_{Rcont}
	kW	ohm		ohm	kJ	kW
ACS880-01-169A-3	90	3.3	SAFUR125F500	4	3600	9
ACS880-01-206A-3	110	3.3	SAFUR125F500	4	3600	9
ACS880-01-246A-3	132	2.3	SAFUR200F500	2.7	5400	13.5
ACS880-01-293A-3	132	2.3	SAFUR200F500	2.7	5400	13.5
ACS880-01-363A-3	160	2.0	SAFUR200F500	2.7	5400	13.5
ACS880-01-430A-3	160	2.0	SAFUR200F500	2.7	5400	13.5
$U_N = 500\text{ V}$						
ACS880-01-02A1-5	0.75	78	JBR-03	80	40	0.14
ACS880-01-03A0-5	1.1	78	JBR-03	80	40	0.14
ACS880-01-03A4-5	1.5	78	JBR-03	80	40	0.14
ACS880-01-04A8-5	2.2	78	JBR-03	80	40	0.14
ACS880-01-05A2-5	3.0	78	JBR-03	80	40	0.14
ACS880-01-07A6-5	4.0	78	JBR-03	80	40	0.14
ACS880-01-11A0-5	5.5	78	JBR-03	80	40	0.14
ACS880-01-014A-5	7.5	39	SACE08RE44	44	210	1
ACS880-01-021A-5	11	39	SACE08RE44	44	210	1
ACS880-01-027A-5	15	19	SACE15RE22	22	420	2
ACS880-01-034A-5	18.5	19	SACE15RE22	22	420	2
ACS880-01-040A-5	22	13	SACE15RE13	13	435	2
ACS880-01-052A-5	22	13	SACE15RE13	13	435	2
ACS880-01-065A-5	37	8	SAFUR90F575	8	1800	4.5
ACS880-01-077A-5	45	8	SAFUR90F575	8	1800	4.5
ACS880-01-096A-5	55	5.4	SAFUR80F500	6	2400	6
ACS880-01-124A-5	75	5.4	SAFUR80F500	6	2400	6
ACS880-01-156A-5	90	3.3	SAFUR125F500	4	3600	9
ACS880-01-180A-5	110	3.3	SAFUR125F500	4	3600	9
ACS880-01-240A-5	132	2.3	SAFUR200F500	2.7	5400	13.5
ACS880-01-260A-5	132	2.3	SAFUR200F500	2.7	5400	13.5
ACS880-01-302A-5	160	2.3	SAFUR200F500	2.7	5400	13.5
ACS880-01-361A-5	160	2.3	SAFUR200F500	2.7	5400	13.5
ACS880-01-414A-5	160	2.3	SAFUR200F500	2.7	5400	13.5
$U_N = 690\text{ V}$						
ACS880-01-07A4-7	5.5	44	SACE08RE44	44	210	1
ACS880-01-09A9-7	7.5	44	SACE08RE44	44	210	1
ACS880-01-14A3-7	11.0	44	SACE08RE44	44	210	1
ACS880-01-019A-7	15.0	44	SACE08RE44	44	210	1
ACS880-01-023A-7	18.5	44	SACE08RE44	44	210	1
ACS880-01-027A-7	22.0	44	SACE08RE44	44	210	1

Drive type	Internal brake chopper		Example brake resistor(s)			
	P_{brcont}	R_{min}	Type	R	E_R	P_{Rcont}
	kW	ohm		ohm	kJ	kW
ACS880-01-07A3-7	6	18	SACE08RE44	44	210	1
ACS880-01-09A8-7	8	18	SACE08RE44	44	210	1
ACS880-01-14A2-7	11	18	SACE08RE44	44	210	1
ACS880-01-018A-7	17	18	SACE15RE22	22	420	2
ACS880-01-022A-7	23	18	SACE15RE22	22	420	2
ACS880-01-026A-7	28	18	SACE15RE22	22	420	2
ACS880-01-035A-7	33	18	SACE15RE22	22	420	2
ACS880-01-042A-7	45	18	SACE15RE22	22	420	2
ACS880-01-049A-7	45	18	SACE15RE22	22	420	2
ACS880-01-061A-7	55	13	SACE15RE13	13	435	2
ACS880-01-084A-7	65	13	SACE15RE13	13	435	2
ACS880-01-098A-7	90	8	SAFUR90F575	8	1800	4.5
ACS880-01-119A-7	110	8	SAFUR90F575	8	1800	4.5
ACS880-01-142A-7	132	6	SAFUR80F500	6	2400	6
ACS880-01-174A-7	160	6	SAFUR80F500	6	2400	6
ACS880-01-210A-7	200	4	SAFUR125F500	4	3600	9
ACS880-01-271A-7	250	4	SAFUR125F500	4	3600	9

3AXD00000588487

P_{brcont} Maximum continuous braking power. The braking is considered continuous if the braking time exceeds 30 seconds.

R_{min} The minimum allowed resistance value of the brake resistor

R Resistance value for the listed resistor assembly

E_R Short energy pulse that the resistor assembly withstands every 400 seconds

P_{Rcont} Continuous power (heat) dissipation of the resistor when placed correctly
The rating apply at an ambient temperature of 40 °C (104 °F)

■ Degree of protection and thermal constant of the resistors

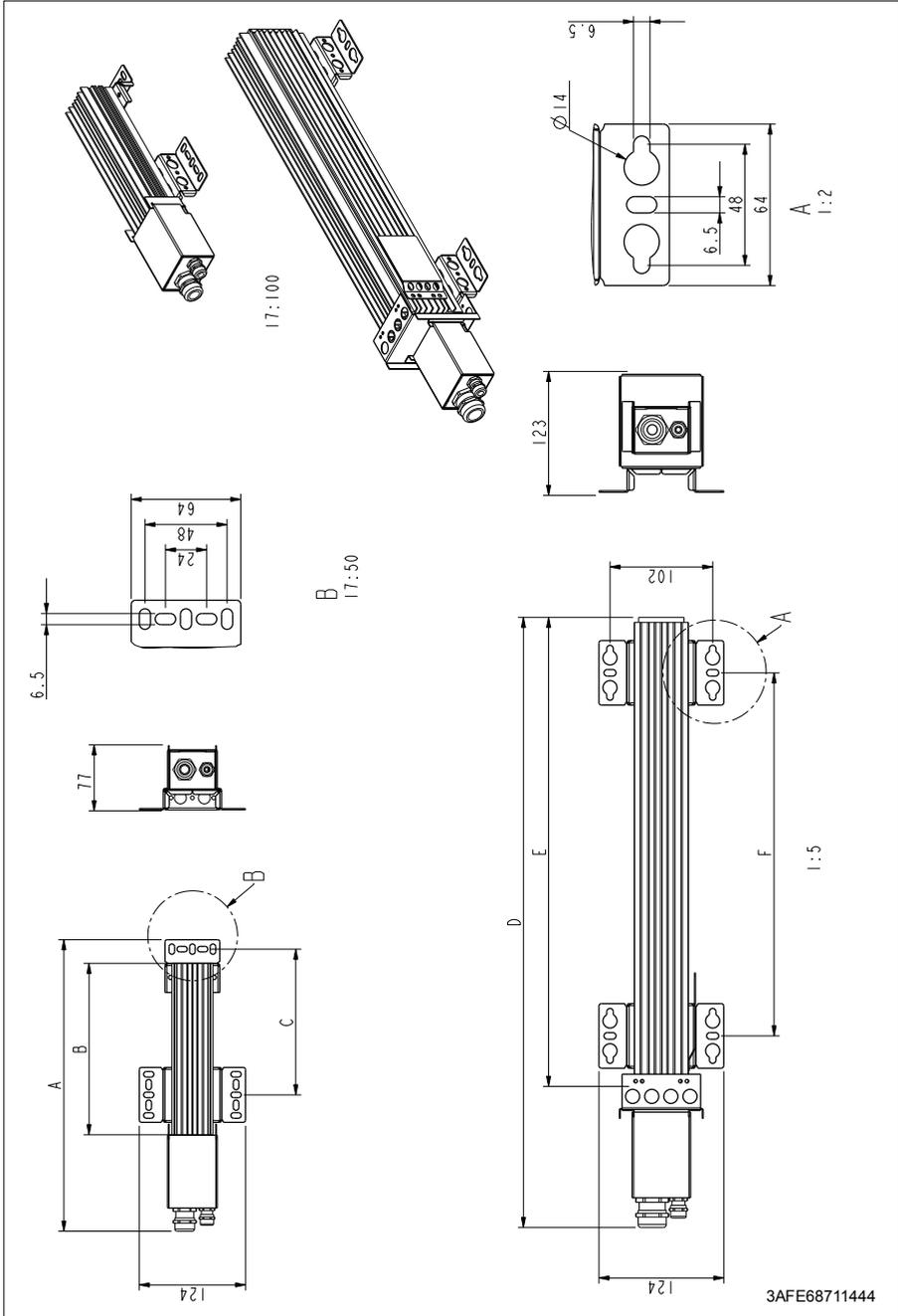
Resistor type	Degree of protection	Thermal constant (s)
JBR-03	IP20	
SACE	IP21	200
SAFUR	IP00	555

■ Terminals and cable entry data

See section [Terminal and entry data for the power cables](#) on page 217.

Dimensions and weights of external resistors

JBR-03



JBR-03 brake resistor	
Dimension A	340 mm (13.39 in)
Dimension B	200 mm (7.87 in)
Dimension C	170 mm (6.69 in)
Weight	0.8 kg (1.8 lb)
Maximum wire size of main terminals	10 mm ² (AWG6)
Tightening torque of main terminals	1.5 ... 1.8 N·m (13 ... 16 lbf·in)
Wire size of thermal switch terminals	4 mm ² (AWG12)
Tightening torque of thermal switch terminals	0.6 ... 0.8 N·m (5.3 ... 7.1 lbf·in)

■ SACE08RE44

