

Brake options



Brake chopper

The ACS800 series has built in brake choppers for all types. Therefore, no additional space or installation time is needed. The brake chopper is part of the standard delivery for the frame sizes R2 - R3 and at 690V frame R4. For the other frames a brake chopper is a selectable option.

Braking control is integrated into the ACS800 series through frame R8. It controls the braking, supervises the system status and detects failures such as brake resistor and resistor cable short circuits, chopper short circuit, and calculated resistor overtemperature.

Brake resistor

Brake resistors are separately available for all ACS800 types. Resistors other than the standard resistors may be used providing the specified resistance value is not decreased, and the heat dissipation capacity of the resistor is sufficient for the drive application.

For ACS800 units, no separate fuses in the brake circuit are required if the following conditions are met:

- The ACS800 mains cable is protected with fuses
- No mains cable/fuse overrating takes place

Dynamic Braking Table - 200-240V applications, stopping duty only

Drive P/N ACS800-U4-	HP ND	Duty Cycle = 3sec on / 27sec off				Duty Cycle = 10sec on / 50sec off			
		Resistor Part No.	Ohms	Watts	Dimensions	Resistor Part No.	Ohms	Watts	Dimensions
0001-2	1	ABB-48431-020	44.0	324	12Wx5Dx5H	ABB-48431-020	44.0	324	12Wx5Dx5H
0002-2	1.5	ABB-48431-020	44.0	324	12Wx5Dx5H	ABB-48431-020	44.0	324	12Wx5Dx5H
0003-2	2	ABB-48431-020	44.0	324	12Wx5Dx5H	ABB-48431-020	44.0	324	12Wx5Dx5H
0004-2	3	ABB-48431-020	44.0	324	12Wx5Dx5H	ABB-48431-021	44.0	800	12Wx7Dx5H
0006-2	5	ABB-48431-001	22.0	285	12Wx5Dx5H	ABB-48431-002	22.0	819	12Wx7Dx5H
0009-2	7.5	ABB-48431-002	22.0	819	12Wx7Dx5H	ABB-48431-002	22.0	819	12Wx7Dx5H
0011-2	10	ABB-48431-030	13.0	1433	12Wx13Dx5H	ABB-48431-030	13.0	1433	12Wx13Dx5H
0016-2	15	ABB-48431-091	8.5	719	12Wx7Dx5H	ABB-48431-093	8.5	1224	12Wx10Dx5H
0020-2	20	ABB-41133	8.0	900	12Wx10Dx5H	ABB-48431-096	8.5	2754	19Wx10Dx5H
0025-2	25	ABB-41148	6.0	3000	19Wx10Dx5H	ABB-41148	6.0	3000	19Wx10Dx5H
0030-2	30	ABB-48431-181	4.3	3135	19Wx10Dx5H	ABB-48431-181	4.3	3135	19Wx10Dx5H
0040-2	40	ABB-48431-181	4.3	3135	19Wx10Dx5H	ABB-41149	4.0	3600	19Wx10Dx5H
0050-2	50	ABB-48431-301	2.5	2723	19Wx10Dx5H	ABB-48431-304	2.5	6250	26.5Wx13Dx5H
0060-2	60	ABB-49173-006	2.0	3600	19Wx10Dx5H	ABB-49173-007	2.0	8600	26.5Wx16Dx5H
0070-2	75	ABB-49173-006	2.0	3600	19Wx10Dx5H	ABB-49173-007	2.0	8600	26.5Wx16Dx5H

Drive P/N ACS800-U4-	HP ND	Duty Cycle = 30sec on / 180sec off				Duty Cycle = 60sec on / 180sec off			
		Resistor Part No.	Ohms	Watts	Dimensions	Resistor Part No.	Ohms	Watts	Dimensions
0001-2	1	ABB-48431-020	44.0	324	12Wx5Dx5H	ABB-48431-020	44.0	324	12Wx5Dx5H
0002-2	1.5	ABB-48431-020	44.0	324	12Wx5Dx5H	ABB-48431-020	44.0	324	12Wx5Dx5H
0003-2	2	ABB-48431-021	44.0	800	12Wx7Dx5H	ABB-48431-021	44.0	800	12Wx7Dx5H
0004-2	3	ABB-48431-021	44.0	800	12Wx7Dx5H	ABB-48431-021	44.0	800	12Wx7Dx5H
0006-2	5	ABB-48431-002	22.0	819	12Wx7Dx5H	ABB-48431-003	22.0	1140	12Wx10Dx5H
0009-2	7.5	ABB-48431-003	22.0	1140	12Wx10Dx5H	ABB-48431-005	22.0	1862	12Wx16Dx5H
0011-2	10	ABB-48431-030	13.0	1433	12Wx13Dx5H	ABB-44473	13.5	2509	19Wx10Dx5H
0016-2	15	ABB-48431-095	8.5	1913	12Wx16Dx5H	ABB-41170	8.0	4600	26.5Wx10Dx5H
0020-2	20	ABB-48431-096	8.5	2754	19Wx10Dx5H	ABB-41170	8.0	4600	26.5Wx10Dx5H
0025-2	25	ABB-41160	6.0	3800	19Wx10Dx5H	ABB-41162	6.0	5200	26.5Wx10Dx5H
0030-2	30	ABB-41149	4.0	3600	19Wx10Dx5H	ABB-44479	4.3	9872	26.5Wx16Dx5H
0040-2	40	ABB-41150	4.0	5600	26.5Wx10Dx5H	ABB-44479	4.3	9872	26.5Wx16Dx5H
0050-2	50	ABB-48431-304	2.5	6250	26.5Wx13Dx5H	ABB-48431-305	2.5	16000	28Wx16Dx10H
0060-2	60	ABB-49173-007	2.0	8600	26.5Wx16Dx5H	ABB-48431-330	2.2	14080	28Wx16Dx10H
0070-2	75	ABB-48431-330	2.2	14080	28Wx16Dx10H	ABB-42684	2.3	18000	28Wx16Dx10H



Brake options

Dynamic Braking Table - 380-480V applications, stopping duty only

Drive P/N ACS800-U4-	HP ND	Duty Cycle = 3sec on / 27sec off				Duty Cycle = 10sec on / 50sec off			
		Resistor Part No.	Ohms	Watts	Dimensions	Resistor Part No.	Ohms	Watts	Dimensions
0004-5	3	ABB-48431-020	44.0	324	12Wx5Dx5H	ABB-48431-020	44.0	324	12Wx5Dx5H
0005-5	3	ABB-48431-020	44.0	324	12Wx5Dx5H	ABB-48431-020	44.0	324	12Wx5Dx5H
0006-5	5	ABB-48431-020	44.0	324	12Wx5Dx5H	ABB-48431-021	44.0	800	12Wx7Dx5H
0009-5	8	ABB-48431-021	44.0	800	12Wx7Dx5H	ABB-48431-021	44.0	800	12Wx7Dx5H
0011-5	10	ABB-48431-021	44.0	800	12Wx7Dx5H	ABB-48431-022	44.0	1263	12Wx10Dx5H
0016-5	15	ABB-48431-002	22.0	819	12Wx7Dx5H	ABB-48431-004	22.0	1408	12Wx13Dx5H
0020-5	20	ABB-48431-003	22.0	1140	12Wx10Dx5H	ABB-48431-006	22.0	2200	19Wx10Dx5H
0025-5	25	ABB-48431-004	22.0	1408	12Wx13Dx5H	ABB-48431-007	22.0	2426	19Wx10Dx5H
0030-5	30	ABB-48431-031	13.0	1872	12Wx16Dx5H	ABB-48431-033	13.0	3328	19Wx10Dx5H
0040-5	40	ABB-48431-032	13.0	2197	19Wx10Dx5H	ABB-48431-035	13.0	4212	26.5Wx10Dx5H
0050-5	50	ABB-48431-096	8.5	2754	19Wx10Dx5H	ABB-48431-068	11.0	4400	26.5Wx10Dx5H
0060-5	60	ABB-48431-097	8.5	5313	26.5Wx13Dx5H	ABB-48431-097	8.5	5313	26.5Wx13Dx5H
0070-5	75	ABB-48431-120	8.0	6272	26.5Wx16Dx5H	ABB-48431-099	8.5	7650	26.5Wx16Dx5H
0100-5	100	ABB-48431-159	5.3	4770	26.5Wx10Dx5H	ABB-48431-184	4.3	10750	28Wx10Dx10H
0120-5	125	ABB-48431-183	4.3	6209	26.5Wx13Dx5H	ABB-48431-185	4.3	17067	28Wx13Dx10H
0140-5	150	ABB-48431-184	4.3	10750	28Wx10Dx10H	ABB-48431-185	4.3	17067	28Wx13Dx10H
0205-5	200	ABB-48431-184	4.3	10750	28Wx10Dx10H	ABB-48431-185	4.3	17067	28Wx13Dx10H

Drive P/N ACS800-U4-	HP ND	Duty Cycle = 30sec on / 180sec off				Duty Cycle = 60sec on / 180sec off			
		Resistor Part No.	Ohms	Watts	Dimensions	Resistor Part No.	Ohms	Watts	Dimensions
0004-5	3	ABB-48431-020	44.0	324	12Wx5Dx5H	ABB-48431-021	44.0	800	12Wx7Dx5H
0005-5	3	ABB-48431-021	44.0	800	12Wx7Dx5H	ABB-48431-021	44.0	800	12Wx7Dx5H
0006-5	5	ABB-48431-021	44.0	800	12Wx7Dx5H	ABB-48431-022	44.0	1263	12Wx10Dx5H
0009-5	8	ABB-48431-022	44.0	1263	12Wx10Dx5H	ABB-48431-023	44.0	3294	19Wx13Dx5H
0011-5	10	ABB-48431-023	44.0	3294	19Wx13Dx5H	ABB-48431-023	44.0	3294	19Wx13Dx5H
0016-5	15	ABB-48431-006	22.0	2200	19Wx10Dx5H	ABB-48431-009	22.0	5632	26.5Wx10Dx5H
0020-5	20	ABB-48431-008	22.0	3168	19Wx13Dx5H	ABB-48431-009	22.0	5632	26.5Wx10Dx5H
0025-5	25	ABB-48431-008	22.0	3168	19Wx13Dx5H	ABB-48431-009	22.0	5632	26.5Wx10Dx5H
0030-5	30	ABB-48431-035	13.0	4212	26.5Wx10Dx5H	ABB-48431-037	13.0	8125	26.5Wx16Dx5H
0040-5	40	ABB-48431-036	13.0	6292	26.5Wx13Dx5H	ABB-48431-038	13.0	11700	28Wx13Dx10H
0050-5	50	ABB-48431-069	11.0	6875	26.5Wx13Dx5H	ABB-48431-100	8.5	12274	28Wx13Dx10H
0060-5	60	ABB-48431-100	8.5	12274	28Wx13Dx10H	ABB-48431-101	8.5	16456	28Wx16Dx10H
0070-5	75	ABB-48431-100	8.5	12274	28Wx13Dx10H	ABB-48431-101	8.5	16456	28Wx16Dx10H
0100-5	100	ABB-48431-162	5.3	13250	28Wx13Dx10H	ABB-48431-211	4.0	22500	28Wx16Dx10H
0120-5	125	ABB-48431-185	4.3	17067	28Wx13Dx10H	ABB-48431-187	4.3	27520	30Wx18Dx24H
0140-5	150	ABB-48431-211	4.0	22500	28Wx16Dx10H	ABB-48431-188	4.3	34830	30Wx18Dx24H
0205-5	200	ABB-48431-212	4.0	25610	30Wx18Dx24H	ABB-48431-189	4.3	43000	30Wx18Dx24H

Brake options



Dynamic Braking Table - 380-480V applications, stopping duty only

Drive P/N ACS800-U4-	HP ND	Duty Cycle = 3sec on / 27sec off				Duty Cycle = 10sec on / 50sec off			
		Resistor Part No.	Ohms	Watts	Dimensions	Resistor Part No.	Ohms	Watts	Dimensions
0170-5	150	ABB-48431-271	2.9	14210	28Wx10Dx10H	ABB-48431-272	2.9	16313	28Wx10Dx10H
0210-5	200	ABB-48431-271	2.9	14210	28Wx10Dx10H	ABB-48431-273	2.9	23490	28Wx16Dx10H
0260-5	200	ABB-48431-271	2.9	14210	28Wx10Dx10H	ABB-48431-273	2.9	23490	28Wx16Dx10H
0270-5	250	ABB-48431-271	2.9	14210	28Wx10Dx10H	ABB-48431-273	2.9	23490	28Wx16Dx10H
0300-5	300	ABB-48431-331	2.2	17820	28Wx13Dx10H	ABB-48431-332	2.2	26620	30Wx18Dx24H
0320-5	350	ABB-48431-331	2.2	17820	28Wx13Dx10H	ABB-48431-332	2.2	26620	30Wx18Dx24H
0400-5	400	ABB-48431-393	1.7	24480	30Wx18Dx16H	ABB-48431-395	1.7	46283	30Wx18Dx32H
0440-5	450	ABB-48431-480	1.2	32670	30Wx18Dx24H	ABB-48431-482	1.2	60750	30Wx18Dx32H
0490-5	500	ABB-48431-514	1.0	34200	30Wx18Dx24H	ABB-48431-517	1.0	67600	30Wx18Dx40H
0550-5	550	ABB-48431-514	1.0	34200	30Wx18Dx24H	ABB-48431-517	1.0	67600	30Wx18Dx40H
0610-5	600	ABB-48431-515	1.0	40000	30Wx18Dx24H	ABB-48431-518	1.0	90000	30Wx18Dx48H

Drive P/N ACS800-U4-	HP ND	Duty Cycle = 30sec on / 180sec off				Duty Cycle = 60sec on / 180sec off			
		Resistor Part No.	Ohms	Watts	Dimensions	Resistor Part No.	Ohms	Watts	Dimensions
0170-5	150	ABB-48431-273	2.9	23490	28Wx16Dx10H	ABB-48431-275	2.9	41760	30Wx18Dx32H
0210-5	200	ABB-48431-274	2.9	29000	30Wx18Dx16H	ABB-48431-276	2.9	52853	30Wx18Dx32H
0260-5	200	ABB-48431-274	2.9	29000	30Wx18Dx16H	ABB-48431-276	2.9	52853	30Wx18Dx32H
0270-5	250	ABB-48431-274	2.9	29000	30Wx18Dx16H	ABB-48431-276	2.9	52853	30Wx18Dx32H
0300-5	300	ABB-48431-334	2.2	40095	30Wx18Dx32H	ABB-48431-366	1.8	72000	30Wx18Dx48H
0320-5	350	ABB-48431-334	2.2	40095	30Wx18Dx32H	ABB-48431-366	1.8	72000	30Wx18Dx48H
0400-5	400	ABB-48431-396	1.7	58183	30Wx18Dx32H	ABB-48431-544*	0.9	45600	30Wx18Dx24H
0440-5	450	ABB-48431-484	1.2	81120	30Wx18Dx48H	ABB-48431-573*	0.6	73500	30Wx18Dx48H
0490-5	500	ABB-48431-518	1.0	90000	30Wx18Dx48H	ABB-Consult Factory			
0550-5	550	ABB-48431-518	1.0	90000	30Wx18Dx48H	ABB-Consult Factory			
0610-5	600	ABB-48431-518	1.0	90000	30Wx18Dx48H	ABB-Consult Factory			

* Requires two resistor assemblies each rated as show and connected in series. (Order quantity 2)