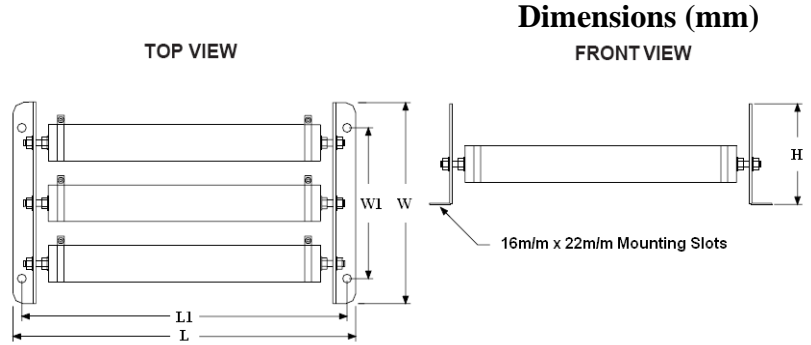
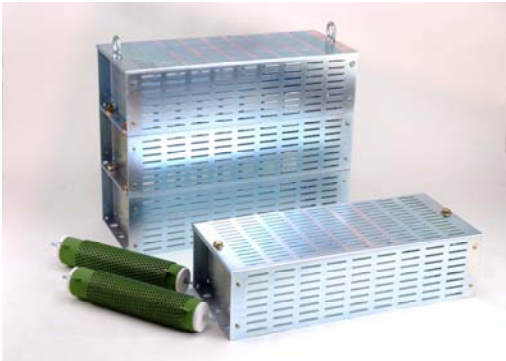
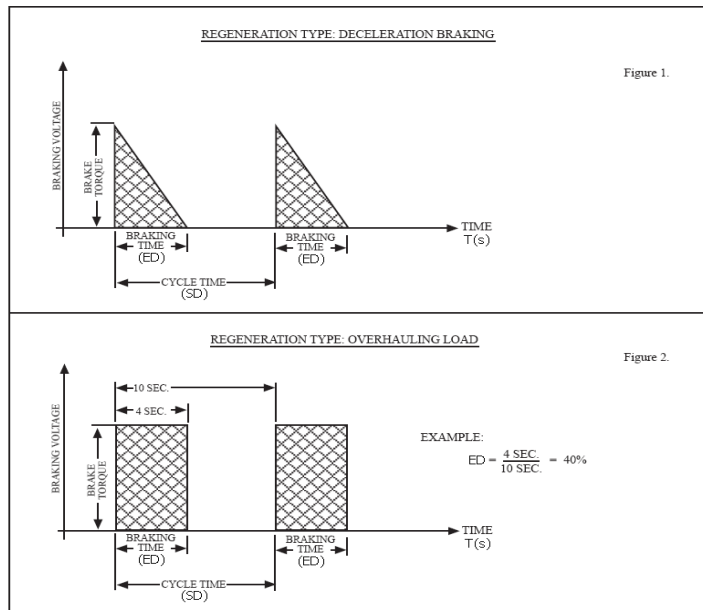


2KW~30KW BOX



All units are provided with a mill galvanized louvered cover

Box power	2KW~5KW	5KW~8KW	7KW~12KW	12KW~18KW	18KW~24KW	24KW~30KW	28KW~36KW
Box Ref :	X-490	X-1H	X-2H	X-3H	X-4H	X-5H	X-6H
L (Length)	490	673	673	673	673	673	673
W (Width)	310	310	310	310	310	310	310
H (Height)	158	158	316	474	632	790	948
L1 (Mount-slots)	458	642	642	642	642	642	642
W1 (Mount-slots)	190	190	190	190	190	190	190
Weight	8kg	12kg	24kg	36kg	48kg	60kg	72kg



Duty Cycle	Maximum Braking Time	
	Overhauling Load	Deceleration Braking
10%	6 sec.	12 sec.
20%	12 sec.	24 sec.
30%	18 sec.	36 sec.
50%	30 sec.	Continuous
100%	Continuous	Continuous

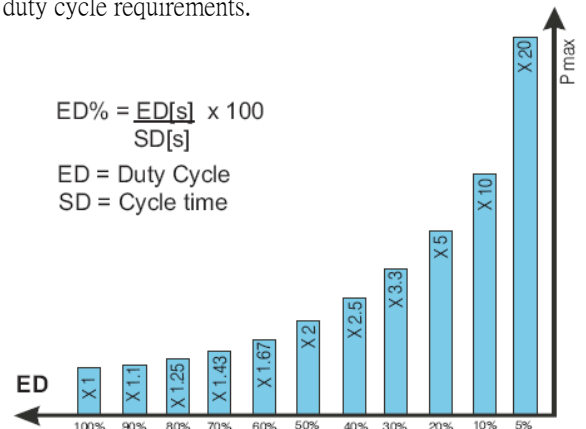
Power Rating Calculation :

■ If the resistor is not being used continuously then it can be used for a higher power rating because it has time to cool during the “rest” period. To calculate, the following formula is used.

■ A braking resistor is selected according to the systems duty cycle requirements.

Application :

- The braking resistor is connected in the DC link, between the rectifiers and the switching semi-conductors. When the DC voltage rises, to a preselected limit, a chopper circuit switches in the braking resistor thereby allowing excess energy to be “dumbed” in the form of heat, instead of causing damage to the inverter.
- When the DC level drops to a lower preset minimum limit the braking resistor is switched out of circuit it is required again.
- Braking resistors are used with inverters, diving motors with a dynamic load requires to be stopped quickly, such as lifts, cranes, or high-speed mechanisms.



$$ED\% = \frac{ED[s]}{SD[s]} \times 100$$

ED = Duty Cycle
SD = Cycle time

Dynamic Braking Resistors

Braking Resistors For 230V Drives Requiring 100% Braking Torque		
H.P.	OHMS	BRAKING AMPS
.50	375.0	1.1
.75	250.0	1.6
1	190.0	2.1
1.5	125.0	3.2
2	95.0	4.2
3	63.0	6.3
5	38.0	11.0
7.5	26.0	15.0
10	19.0	21.0
15	12.6	32.0
20	9.6	42.0
25	7.5	53.0
30	6.3	63.0
40	4.9	82.0
50	3.9	100.0
60	3.3	120.0
75	2.7	150.0
100	1.9	210.0
125	1.6	250.0
150	1.3	310.0
200	1.0	400.0
250	0.8	500.0

Braking Resistors For 230V Drives Requiring 150% Braking Torque		
H.P.	OHMS	BRAKING AMPS
.50	250.0	1.6
.75	170.0	2.4
1	125.0	3.2
1.5	85.0	4.7
2	63.0	6.3
3	42.0	9.5
5	25.0	16.0
7.5	16.8	24.0
10	12.6	32.0
15	8.4	48.0
20	6.3	63.0
25	5.0	80.0
30	4.2	95.0
40	3.2	125.0
50	2.5	160.0
60	2.1	190.0
75	1.7	235.0
100	1.3	310.0
125	1.0	400.0
150	0.85	470.0
200	0.65	610.0
250	0.50	800.0

Dynamic Braking Resistors

Braking Resistors For 460V Drives Requiring 100% Braking Torque		
H.P.	OHMS	BRAKING AMPS
.50	1500.0	0.5
.75	1000.0	0.8
1	750.0	1.1
1.5	500.0	1.6
2	375.0	2.1
3	250.0	3.2
5	150.0	5.3
7.5	100.0	8.0
10	75.0	11.0
15	50.0	16.0
20	38.0	21.0
25	30.0	27.0
30	25.0	32.0
40	19.0	42.0
50	15.0	53.0
60	12.6	63.0
75	10.0	80.0
100	7.5	110.0
125	6.0	130.0
150	5.0	160.0
200	3.8	210.0
250	3.0	270.0
300	2.5	320.0
350	2.2	360.0
400	1.9	420.0
500	1.5	530.0

Braking Resistors For 460V Drives Requiring 150% Braking Torque		
H.P.	OHMS	BRAKING AMPS
.50	1000.0	0.8
.75	675.0	1.2
1	500.0	1.6
1.5	335.0	2.4
2	250.0	3.2
3	170.0	4.7
5	100.0	8.0
7.5	67.0	12.0
10	50.0	16.0
15	34.0	24.0
20	25.0	32.0
25	20.0	40.0
30	17.0	47.0
40	12.6	63.0
50	10.0	80.0
60	8.4	95.0
75	6.7	120.0
100	5.0	160.0
125	4.0	200.0
150	3.4	235.0
200	2.5	320.0
250	2.0	400.0
300	1.7	470.0
350	1.5	530.0
400	1.3	610.0
500	1.0	800.0

Dynamic Braking Resistors

Braking Resistors For 575V Drives Requiring 100% Braking Torque		
H.P.	OHMS	BRAKING AMPS
.50	2000.0	0.5
.75	1500.0	0.7
1	1200.0	0.8
1.5	800.0	1.3
2	575.0	1.7
3	400.0	2.5
5	235.0	4.3
7.5	150.0	6.7
10	120.0	8.3
15	78.0	13.0
20	59.0	17.0
25	47.0	21.0
30	39.0	26.0
40	29.0	34.0
50	23.0	43.0
60	20.0	50.0
75	15.6	64.0
100	11.7	85.0
125	9.3	110.0
150	7.8	130.0
200	5.9	170.0
250	4.7	210.0

Braking Resistors For 575V Drives Requiring 150% Braking Torque		
H.P.	OHMS	BRAKING AMPS
.50	1500.0	0.7
.75	1000.0	1.0
1	800.0	1.3
1.5	525.0	1.9
2	400.0	2.5
3	260.0	3.8
5	160.0	6.3
7.5	100.0	10.0
10	80.0	13.0
15	52.0	19.0
20	39.0	26.0
25	32.0	31.0
30	26.0	38.0
40	20.0	50.0
50	16.0	63.0
60	13.0	77.0
75	10.4	96.0
100	7.8	130.0
125	6.3	160.0
150	5.2	190.0
200	3.9	150.0
250	3.2	310.0