

15.0 Braking Unit and Braking Resistor Selections

N3 Inverter Model	Braking Unit		Braking Resistor per braking unit Type	Suitable Motor Capacity		Braking resistor Specification		Braking Resistor Duty Cycle (%)	Braking torque (%)	Resistor dimension (L x W x H) mm (inches)
	Model	Qty		(HP)	(KW)	(W)	(Ω)			
2P5	-	-	JNBR-150W200	0.5	0.4	150	200	10	238	251*28*60 (9.88*1.10*2.36)
201	-	-	JNBR-150W200	1	0.75	150	200	10	119	251*28*60 (9.88*1.10*2.36)
202	-	-	JNBR-150W100	2	1.5	150	100	10	119	251*28*60 (9.88*1.10*2.36)
203	-	-	JNBR-260W70	3	2.2	260	70	10	115	274*34*78 (10.79*1.34*3.07)
205	-	-	JNBR-390W40	5	3.7	390	40	10	119	395*34*78 (10.79*1.34*3.07)
207	-	-	JNBR-520W30	7.5	5.5	520	30	10	108	400*40*100 (15.7*1.57*3.94)
210	-	-	JNBR-780W20	10	7.5	780	20	10	119	400*40*100 (15.7*1.57*3.94)
215	-	-	JNBR-2R4KW13R6	15	11	2400	13.6	10	117	535*50*110 (Qty 2) (21.1*1.96*4.33)
220	-	-	JNBR-3KW10	20	15	3000	10	10	119	615*50*110 (Qty 2)
225	JNTBU-230	1	JNBR-4R8KW8	25	18.5	4800	8	10	119	535*50*110 (Qty 4) (21.1*1.96*4.33)
230	JNTBU-230	1	JNBR-4R8KW6R8	30	22	4800	6.8	10	117	535*50*110 (Qty 4) (21.1*1.96*4.33)
240	JNTBU-230	2	JNBR-3KW10	40	30	3000	10	10	119	615*50*110 (Qty 2) (24.21*1.96*4.33)
401	-	-	JNBR-150W750	1	0.75	150	750	10	126	251*28*60 (9.88*1.10*2.36)
402	-	-	JNBR-150W400	2	1.5	150	400	10	119	251*28*60 (9.88*1.10*2.36)
403	-	-	JNBR-260W250-	3	2.2	260	250	10	126	274*34*78 (10.79*1.34*3.07)
405	-	-	JNBR-400W150-	5	3.7	400	150	10	126	395*34*78 (10.79*1.34*3.07)
407	-	-	JNBR-600W130-	7.5	5.5	600	130	10	102	470*50*100 (15.7*1.57*3.94)
410	-	-	JNBR-800W100	10	7.5	800	100	10	99	535*50*110 (24.21*1.96*4.33)
415	-	-	JNBR-1R6KW50	15	11	1600	50	10	126	615*50*110 (24.21*1.96*4.33)
420	-	-	JNBR-1R5KW40	20	15	1500	40	10	119	615*50*110 (24.21*1.96*4.33)
425	JNTBU-430	1	JNBR-4R8KW32	25	18.5	4800	32	10	119	535*50*110 (Qty 4) (21.1*1.96*4.33)
430	JNTBU-430	1	JNBR-4R8KW27R2	30	22	4800	27.2	10	117	535*50*110 (Qty 4) (21.1*1.96*4.33)
440	JNTBU-430	1	JNBR-6KW20	40	30	6000	20	10	119	615*50*110 (Qty 4) (24.21*1.96*4.33)
450	JNVPHV-0060	1 ⁵	JNBR-9R6KW16	50	37	9600	16	10	119	535*50*110 (Qty 8) (21.1*1.96*4.33)
460	JNVPHV-0060	1 ⁵	JNBR-9R6KW13R6	60	45	9600	13.6	10	117	535*50*110 (Qty 8) (21.1*1.96*4.33)
475	JNTBU-430	2	JNBR-6KW20	75	55	6000	20	10	126	615*50*110 (Qty 4) (24.21*1.96*4.33)

Formula for brake resistor: $W = (V_{pnb} * V_{pnb}) * ED\% / R$

1. **W**: braking resistor power (Watts)
2. **V_{pnb}**: braking voltage (220V=380VDC, 440V=760VDC)
3. **ED%**: braking effective period
4. **R**: braking resistor rated ohms
5. **Alternative selection choice**: 450: (JNTBU-430 + JNBR-4R8KW32) × 2, 460: (JNTBU-430 + JNBR-4R8KW27R2) × 2

Above 25HP, please add Braking Transistor Units: 200V JNTBU-230, 400V JNTBU-430, and 400V JNVPHV-0060

For more detailed information, please contact TECO.

When installing a braking unit and resistor, ensure that there is adequate clearance and ventilation.