



Foot Mounted CBP-400 & CBP-500

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OPERATION

Foot mounted packages Modules are power applied and require a DC voltage to operate.

Clutch-Brakes: To start and stop the load; DC voltage is switched between the clutch-brake coils.

All Dynacorp foot mounted packages have been tested with an inertia load attached to the output shaft. This test and run-in period will insure full rated torque “Out of the Box” and consistent starts and / or stops. All are self adjusting.

NOMENCLATURE

Prefix

CBP = Clutch-Brake Package – Power applied brake to stop and power applied clutch to start.

Middle

400 = 304184 series, 22 Ft-Lbs (264 In-Lbs) static torque

500 = 305184 series, 57 Ft-Lbs (684 In-Lbs) static torque

INSTALLATION

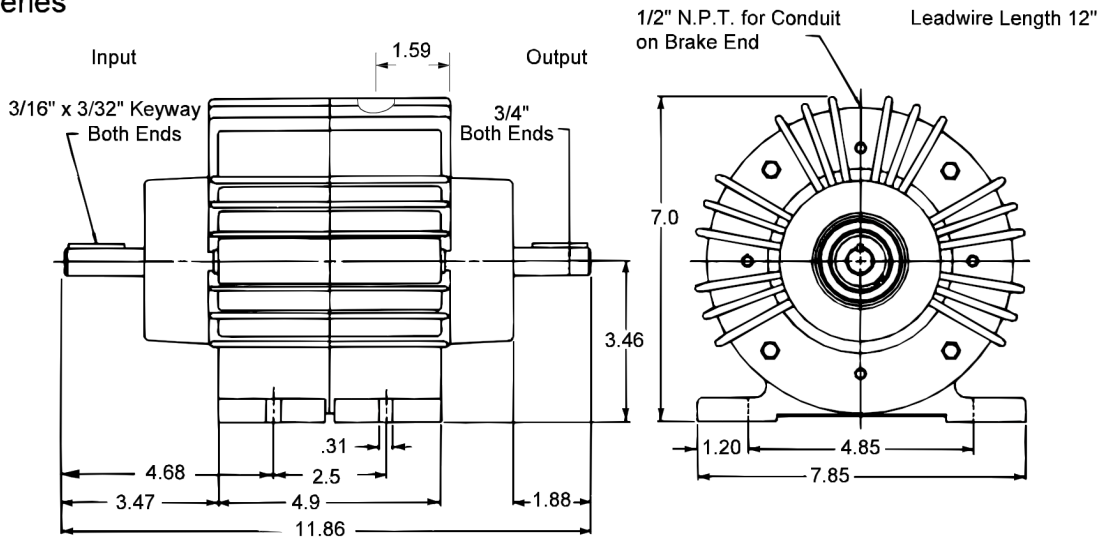
The input (clutch end) and output (brake end) are similar they are marked “Input” and “Output”.

Bolt package base to your mounting surface.

Dynacorp – an Inertia Dynamics Product Line
31 Industrial Park Road, New Hartford, CT 06057
Toll-Free: 1-800-800-6445 • Main Phone: (860) 379-1252 • sales@idicb.com
Customer Service Fax: (860) 379-1137 • Technical Support Fax: (860) 379-1197

CBP-400 and CBP-500 Foot Mounted Clutch-Brqake Packages

304184 Series

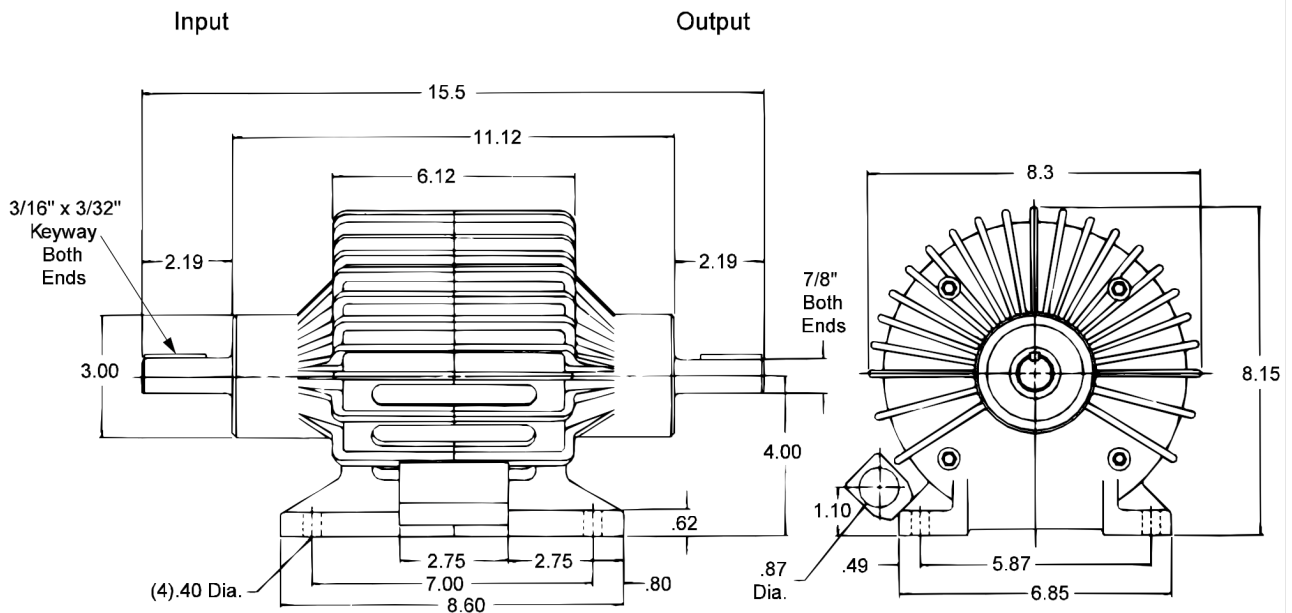


Technical Data and Torque (In. Lb.)

Model No.	Wt. Lbs.	Static Torque in. lb.	Max. Speed RPM	Coil Voltage vdc	* Rated Current amps	RPM									
						0	300	600	900	1200	1500	1800	2400	3000	3600
CBP-400	23	264	3600	90	.12	264	216	192	180	168	156	156	144	132	120

* Rated Current for 90v

305184 Series



Technical Data and Torque (In. Lb.)

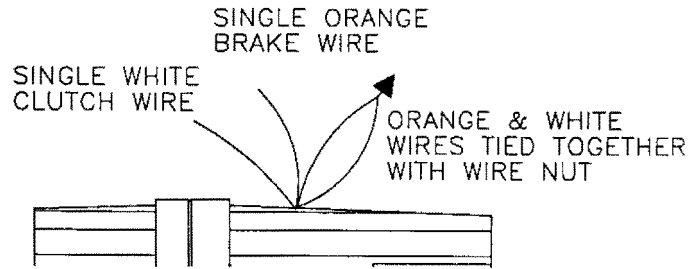
Model No.	Wt. Lbs.	Static Torque in. lb.	Max. Speed RPM	Coil Voltage vdc	Rated Current amps		RPM									
					Clutch	Brake	0	300	600	900	1200	1500	1800	2400	3000	3600
CBP-500	35	684	3600	90	.39	.41	684	624	564	516	468	420	384	324	288	252

* Rated Current for 90v

WIRING

OPTIMUM WIRING FOR CLUTCH-BRAKE PACKAGES.
DO NOT REMOVE WIRE NUT FROM ORANGE AND WHITE WIRE

WIRE COLOR CODES:
ORANGE WIRES = BRAKE
WHITE WIRES = CLUTCH.



This clutch-brake package will perform best when the clutch and brake magnetic fields are of the opposite polarity. The clutch field build up will assist the decay for the brakes magnetic field and the opposite it true when the brake is energized. This helps eliminate clutch-brake overlap and lengthens the life of the clutch-brake. Your drive system will receive less shock. Wiring as follows maintains opposite coil polarization.

CONNECTING TO DYNACORP CLUTCH-BRAKE CONTROLS

CBP Clutch-Brake Package

Single orange wire =
Single white wire =
White & orange wire tied together

D2550, D2650, D2750 and D2950

Terminal B (brake)
Terminal C (clutch)
Terminal A

CBP Clutch-Brake Package

Single orange wire =
Single white wire =
White & orange wire tied together

D2100 and D2110

Terminal 8 (brake)
Terminal 3 (clutch)
Terminal 4

CBP Clutch-Brake Package

Single orange wire =
Single white wire =
White & orange wire tied together

D2101 (D6001-448-004) AND

D2111 (D6001-448-006)

Terminal 8 (brake)
Terminal 3 (clutch)
Terminal 2 or terminal 6

OTHER CLUTCH-BRAKE POWER SUPPLIES:

CBP Clutch-Brake Package

Single orange wire =
Single white wire =
White & orange wire tied together =

DC Power Supply

Brake power supply positive (+)
Clutch power supply positive (+)
Power supply common (-)

TROUBLE SHOOTING

This product has been tested prior to shipment. It has passed torque and dynamic cycling tests. It is self adjusting and does not require maintenance during its life.

CLUTCH OR BRAKE DOES NOT ENGAGE

CBP packages are power applied; check to see if the required voltage is present at the packages lead wires.

- No voltage present: Check the control's output voltage, torque pot settings if it has them, wiring and switching circuits
- Voltage present: Check resistance for the clutch or brake coils (see chart below) if coils are not within specifications, replace them.
- Coils good: Internals are out of position due to extreme shocks during shipment. 304184 series - open unit and reposition armatures. 305184 series – Through vent slots use equal pressure with screw drivers to reposition armatures. If this does not correct problem unit requires repair.

CLUTCH OR BRAKE ENGAGES AND DOES NOT START OR STOP LOAD

- Clutch-Brake undersized, check selection procedure.
- Possible jam or binding in machine. Monitor motors running current draw versus name plate to see if the load has increased or is larger than anticipated.

CLUTCH-BRAKE OPERATES PROPERLY WHEN COOL BUT NOT AFTER RUNNING FOR A PERIOD OF TIME.

- Clutch-Brake undersized, when starts and or stops are greater than 15 CPM the units thermal capabilities must be considered along with calculated torque for proper selection. High inertia loads at low cycle rates also require that the unit selection is based on heat and torque capacities.

NOISE WHEN DRIVING THE LOAD*

- Lightly loaded single phase and or variable speed motors can create an oscillating motion that will cause chatter between the splined armature and stainless steel hub. Make sure set screws are tight, may not be correctable since it is a function of 2 metal surfaces and the oscillations from the drive source.

*304184-12 and 305184-6 (both 90VDC) are zero air styles that incorporate a coil spring that forces the armatures against the friction faces to reduce pull-in time. This style is used where fast engagement time is critical; usually high cycle applications with the D2950 overexcite control or when a slow start/stop is required with the D2750 accel-decel control. Since the friction surfaces are always in contact a rubbing noise is normal. The design of your machine may increase or decrease this noise.

304184 Series

COIL DATA

VOLTAGE	RESISTANCE	CURRENT DRAW
6 VDC	3.62 OHMS	1.66 AMPS
12 VDC	10.8 OHMS	1.11 AMPS
24 VDC	47.9 OHMS	.50 AMPS
90 VDC	687 OHMS	.13 AMPS

VALUES ±10% AT 70 DEGREES F

305184 Series

COIL DATA

VOLTAGE	RESISTANCE	CURRENT DRAW
6 VDC	1.02 OHMS	5.87 AMPS
12 VDC	3.60 OHMS	3.34 AMPS
24 VDC	14.5 OHMS	1.65 AMPS
90 VDC	219 OHMS	.41 AMPS

VALUES ±10% AT 70 DEGREES F