

ADJUSTABLE SPEED DRIVES

**“DCD” Drives
3 through 25 HP
Models DCD-132 Through DCD-160**



Description

The Model DCD drive is a combination of an air-cooled, adjustable speed clutch and a flange mounted AC induction motor. Simple low-cost dependability. The DCD drive transmits torque at variable speeds. There is no physical contact between input and output members. This results in smooth response, thereby eliminating shock loading and extending equipment life. All drives have an integral tachometer generator mounted around the output shaft to provide a feedback signal to the drive's controller. The controller provides the DC excitation for the clutch coil. The feedback signal from the tachometer generator is used as a reference signal within the controller to maintain accurate speed regulation.

Features & Benefits

- Simple, rugged and reliable units with a long life cycle.
- Operates in hostile environments with lower maintenance costs.
- No routine maintenance and worry-free operation.
- Approximately 250% high torque output.
- Lower operating costs.
- Dependable and reliable in asphalt/aggregate duty.
- Self-cleaning rotor for a dust and dirt-free operation.

ADJUSTABLE SPEED DRIVES

“DCD” Drives 3 through 25 HP

Specifications

Motor	HP and RPM Totally Enclosed Fan Cooled (TEFC) NEMA Design B Class F insulation, Class B rise 1.15 service factor Input Power Options	See selection table on next pg. Standard Standard Standard Standard 208/220 through 380V, 3 phase, 50 Hz 230 through 460V, 3 phase, 60 Hz 575V, 3 phase, 60 Hz
Clutch	Stationary coil Coil voltages Rated for constant torque Starting torque Intermittent torque AC tachometer generator Cooling	Standard 90 VDC – Standard Standard Approximately 250% Approximately 250% Standard 100% self ventilated
Status Indication	Speed indicating signal	0-60 VAC from tachometer generator for optional meter
Environmental Ratings	Storage temperature Operating temperature Maximum operating temperature Altitude	-4° to 149° F (-20° to 65° C) Standard 32° to 104° F (0° to 40° C) Standard 150° F (De-rating required) 3300 Ft. (1000 m) Standard
Codes and Standards	Mechanical NEMA, as applicable	Standard
Reliability Testing	Mechanical 100% dynamometer tested Controllers (sold separately) Pre-tested components Computer test and pre-calibrated PCBs	Standard Standard Standard

ADJUSTABLE SPEED DRIVES

“DCD” Drives 3 through 25 HP

**Ordering Information
Selection Table - 60 Hz**

HP	Speed Range (RPM)	Model Number	Motor Frame Size	Poles	Torque (Lb. Ft.)
3	0-1630	DCD-132030-4141	182TC	4	9.2
5	0-1500	DCD-132050-4141	184TC	4	15.0
5	0-3300	DCD-132050-4121	184TC	2	7.5
7.5	0-3300	DCD-132075-4121	213TC	2	11.3
10	0-3250	DCD-132100-4121	215TC	2	15.3
7.5	0-1630	DCD-160075-4141	213TC	4	22.5
10	0-1580	DCD-160100-4141	215TC	4	30.0
15	340-1550	DCD-160150-4141	254TC	4	45.0
15	0-3300	DCD-160150-4121	254TC	2	22.5
20	0-3250	DCD-160200-4121	256TC	2	30.3
25	640-3250	DCD-160250-4121	284TSC	2	37.8

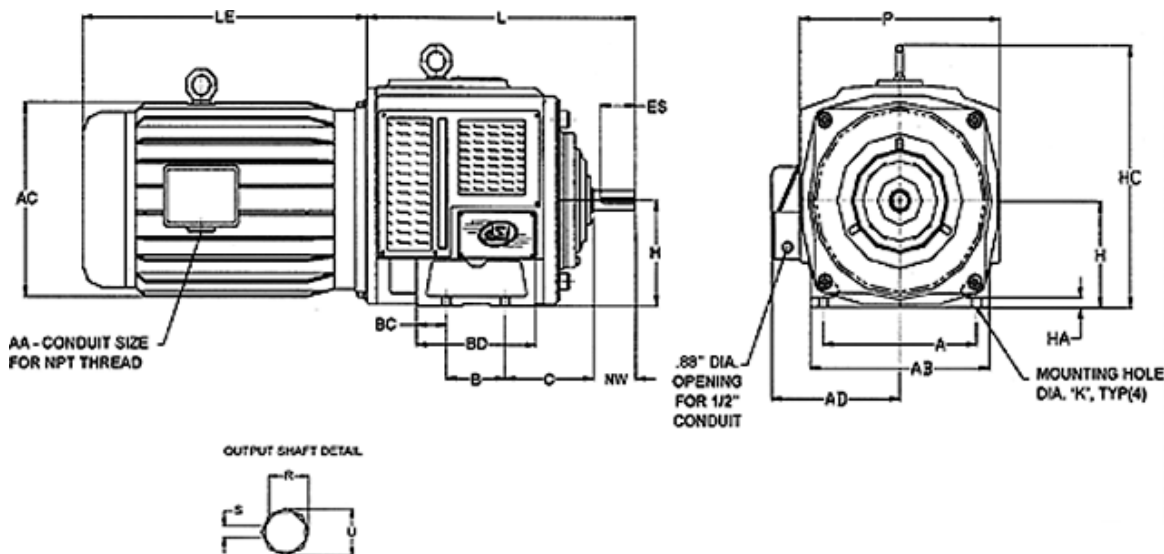
Technical Data

Model Number	Motor Power HP	Poles	Speed Range RPM	Clutch Volts DC	Clutch OHMS@ 20 DEG C	Clutch AMPS Hot	Clutch HP Disp.
DCD-132030-4141	3	4	1630-0	90	27	2.2	3
DCD-132050-4141	5	4	1500-0	90	22	2.7	5
DCD-132050-4121	5	2	3300-0	90	27	2.2	5
DCD-132075-4121	7.5	2	3300-0	90	22	2.7	7.5
DCD-132100-4121	10	2	3250-0	90	22	2.7	10
DCD-160075-4141	7.5	4	1630-0	90	19.5	3.3	7.5
DCD-160100-4141	10	4	1580-0	90	19.5	3.3	10
DCD-160150-4141	15	4	1550-340	90	19	3.4	11.9
DCD-160150-4121	15	2	3300-0	90	19.5	3.3	15
DCD-160200-4121	20	2	3250-0	90	19.5	3.3	20
DCD-160250-4121	25	2	3250-640	90	19	3.4	20.5

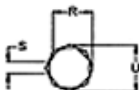
ADJUSTABLE SPEED DRIVES

“DCD” Drives 3 through 25 HP

Outline Drawings – DCD-132 & DCD-160



OUTPUT SHAFT DETAIL



Model	Poles	Max Speed (RPM)	Motor Power (HP)	Wt. Lbs.	Overall & Mounting Dimensions												
					A	B	C	H	K	AB	AD	BD	BC	HA	HC	L	L ¹
DCD-132	4	1630-0	3	232													
	4	1500-0	5	247													
	2	3300-0	5	249	8.50	3.15	4.84	5.20	.50	10.63	6.90	6.25	1.50	.56	13.00	14.7	14.7
	2	3300-0	7.5	286													
	2	3250-0	10	300													
DCD-160	4	1630-0	7.5	475													
	4	1580-0	10	498													
	4	1550-340	15	590	10.0	3.935	3.86	6.299	.59	12.80	8.55	11.03	5.14	.55	15.00	17.2	21.26
	2	3300-0	15	582													
	2	3250-0	20	625													

Model	Hp	Frame	AC	LE**	AA	2E	2F	KK
DCD-132	3	182TC	8.8	14.95	.75	--	--	--
	5	184TC	8.8	14.95	.75	--	--	--
	7.5	213TC	10.25	17.12	1.00	--	--	--
	10	215TC	10.25	17.12	1.00	--	--	--
DCD-160	7.5	213TC	10.25	17.12	1.00	8.50	5.50	.41
	10	215TC	10.25	17.12	1.00	8.50	7.00	.41
	15	254TC	12.70	22.60	1.25	10.00	8.25	.53
	20	256TC	12.70	22.60	1.25	10.00	10.00	.53
	25	284TC	14.50	24.75	1.25	11.00	9.50	.53

Output Shaft Data					
Model	ES	NW	U	S	R
DCD-132	1.75	2.75	1.125	.25	.987
DCD-160	2.375	3.375	1.375	.3125	1.201

Notes:

- Terminal box mounting is optional on right or left side.
- Alternate flanges are available for basic and freestanding models
- Weight is approximate and includes motor.
- ¹ Dimension includes flange
- ** LE Dimension Listed is subject to change based on motor supplied