



BALDOR® • *RELIANCE*

Product Information Packet

ECP83771T-4

10HP,3510RPM,3PH,60HZ,215T,TEFC,FOOT

Product Detail			
Model Number:	ECP83771T-4	Environment:	Harsh / Mill & Chemical
Voltage:	460	HP:	10
Rpm:	3510	Efficiency:	Premium (XE)
Phase:	3	Frequency:	60
Inverter Duty:	*	Enclosure:	TEFC
Frame Group:	210	Frame Size:	215T
Features:	Meets IEEE-841	Mounting:	Foot Mounted
Service Factor:	1.15	Enclosure Group:	TEFC
List Price:	1936.00	Price Symbol:	SD
Speed Range:	2501-3600	Insulation Class:	F
Nema Design:	B	Encl Enhancement:	
Catalog Page:	M-22,B	Dimension Sheet:	613051-510
Connection Diagram:	416820-24	Electric Design:	E01355-A-B002
Single HP:	10	Get Notes:	Meets IEEE-841
Revision:		Instruction Manual:	B-3620
Application:	General Purpose	Epact:	Y
Scaled Drawing:		Obsolete:	N
Last Data Source:	RAG,MADD	Bearing Type:	
Electrical Type:	P	Mounting Pos:	
Ambient:	40	Duty:	CONT
Amps:	11.1	Nominal Eff:	91.0
Kva Code:	H	Power Factor:	93.6
Poles:	02	Weight:	187

DUTY MASTER ALTERNATING CURRENT MOTORS

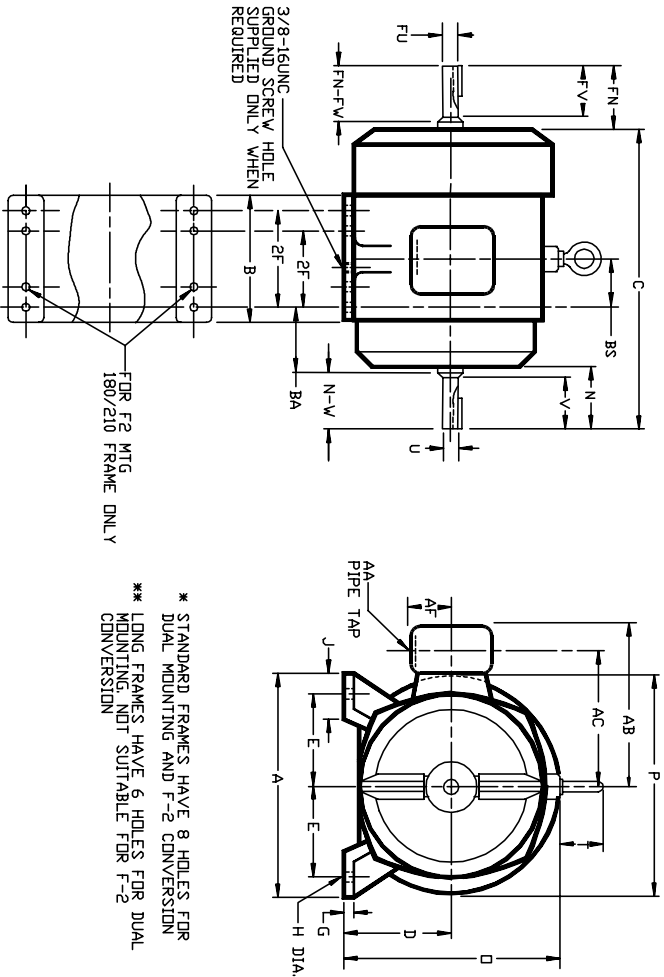
DIST. CODE "W"

SQUIRREL-CAGE INDUCTION
X/T CONSTRUCTION

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT

COOLING: FAN COOLED

ONE SIZE LARGER CAST IRON CONDUIT BOX
FRAMES 180T THRU 210T



DIMENSIONS ARE IN INCHES; SEE SHEET 2 FOR DIMENSIONS IN MILLIMETERS

FRAME	A	DC3	E	G	H	J	D	P	T	CAST IRON TERMINAL BOX
180T-180T	9.00	4.50	3.75	4.4	4.4	1.75	9.98	9.50	2.00	1-1/4 8.94 5.94 2.50 2.75
210T-210T	10.50	5.25	4.25	4.4	4.4	2.00	11.25	11.00	2.00	1-1/4 9.81 7.81 2.50 3.50

FRAME FOOT MTG	PROV	C	BS	B	2F	N	N-V	U(2)	V	SQ.	LGTH.	FN	FN-FW	FUK(2)	FV	SQ.	LGTH.	WTS. (4)	WEIGHT
180T	182T	15.62	2.75	7.00	4.50	3.00	2.75	11.250	2.50	.250	1.75	3.12	2.25	8.750	2.00	.188	1.38	86	91
180T	184T	17.12	3.50	8.50	4.50	3.00	2.75	11.250	2.50	.250	1.75	3.12	2.25	8.750	2.00	.188	1.38	116	121
180T	184T**	19.31	3.50	8.50	5.50	3.62	3.38	13.750	3.12	.312	2.38	3.75	2.75	11.250	2.50	.250	1.75	135	145
210T	213T	20.19	3.94	9.12	5.50	3.62	3.38	13.750	3.12	.312	2.38	3.75	2.75	11.250	2.50	.250	1.75	175	185
210T	215T**				7.00														

- (1) SPECIAL DIMENSIONS ON THIS LINE
 - (2) *U* AND *FV* MAY VARY +.0000, -.0005
 - (3) *D* MAY VARY +.00, -.03
 - (4) MOTOR WEIGHTS MAY VARY BY 15% FOR NON-STANDARD RATINGS.
- CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7 OR C-1 MOUNTING IS SPECIFIED.
- MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .002 T.I.R.
- IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

FRAME- _____ TYPE- _____ CERTIFIED FOR- _____

ORDER- _____ ITEM _____ HP- _____ RPM- _____ PH- _____ HZ- _____ VOLTS _____

RELIANCE SALES ORDER- _____ APPROVED BY- _____ DATE- _____

DR. BY KENGLISH
CK. BY R. BROWN
APP. BY S.K.L. BORN
DATE 4-21-96

DIMENSION SHEET 613051-510

ISSUE DATE: JULY 24, 1996

C/R 293454 10-541-05 10-541-00 E:\VDS_AC\613051\510-SH

DUTY MASTER ALTERNATING CURRENT MOTORS

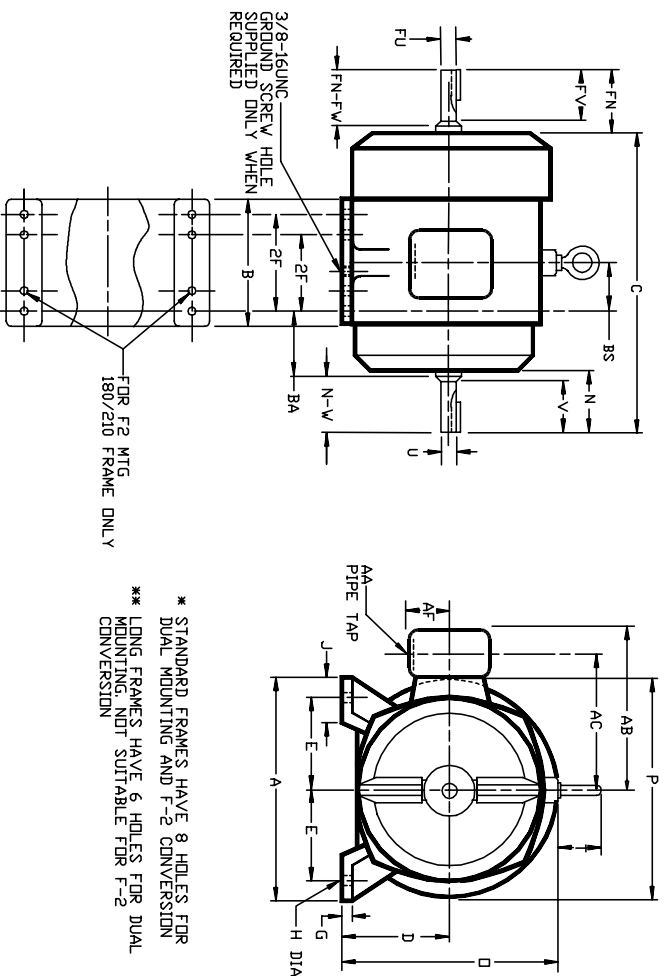
DIST. CODE "W"

SQUIREL-CAGE INDUCTION
X/T CONSTRUCTION

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT

COOLING: FAN COOLED

ONE SIZE LARGER CAST IRON CONDUIT BOX
FRAMES 180T THRU 210T



* STANDARD FRAMES HAVE 8 HOLES FOR DUAL MOUNTING AND F-2 CONVERSION
** LONG FRAMES HAVE 6 HOLES FOR DUAL MOUNTING, NOT SUITABLE FOR F-2 CONVERSION

DIMENSIONS ARE IN MILLIMETERS; SEE SHEET 1 FOR DIMENSIONS IN INCHES

FRAME	A	DC3	E	G	H	J	D	P	T	CAST IRON TERMINAL BOX
180T-180T	2286	114.3	95.3	112	112	44.5	251.0	241.3	50.8	1-1/4
210T-210T	2567	133.3	108.0	112	112	50.8	285.7	279.4	50.8	1-1/4
(1)										

FRAME SIZE	FOOT MTG	PROV	C	BS	B	2F	2F	B.E. SHAFT AND KEY				FRONT END SHAFT AND KEY				WEIGHT (4)												
								N	N-V	UC2	V	SO.	LGTH	FN	FN-FV		FV	SO.	LGTH	KGS								
180T	184T	*	396	76	69	177	8	76	69	28	57	63	5	44	79	57	22	22	50	8	4	78	35	1	39	0	4	
180T	184T	**	434	86	89	215	9	76	69	28	57	63	5	44	79	57	22	22	50	8	4	78	35	1	52	6	5	
210T	215T	*	490	58	89	215	9	91	85	34	92	79	2	60	5	95	3	69	28	57	63	5	44	5	61	2	6	
210T	215T	**	512	8	100	231	6	91	85	34	92	79	2	60	5	95	3	69	28	57	63	5	44	5	79	4	7	

- (1) SPECIAL DIMENSIONS ON THIS LINE
 - (2) *U* AND *FV* MAY VARY +.000, -.013
 - (3) *D* MAY VARY +.00, -.08
 - (4) MOTOR WEIGHTS MAY VARY BY 15%
 - (5) DIMENSIONS IN INCHES.
- STANDARD DOUBLE SHAFT SUPPLIED ONLY
- CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, W-4, V-5, V-7 OR C-1 MOUNTING IS SPECIFIED.
- MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .050 T.I.R.
- IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

FRAME- _____ TYPE- _____ CERTIFIED FOR- _____

ORDER- _____ ITEM _____ HP- _____ RPM- _____ PH- _____ HZ- _____ VOLTS _____

RELIANCE SALES ORDER- _____ APPROVED BY- _____ DATE- _____

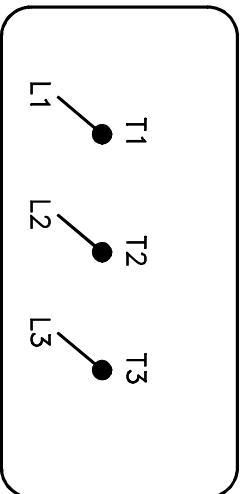
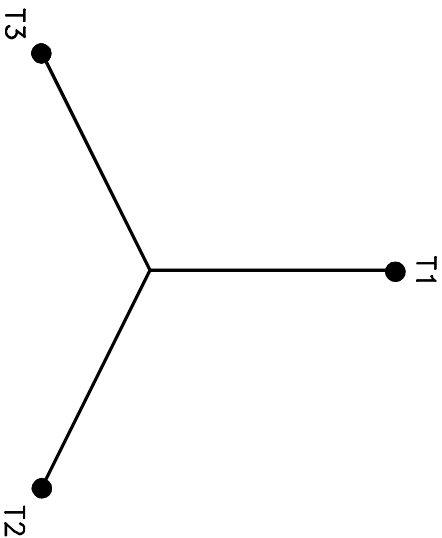
DR. BY KENGLISH
CK. BY R. BROWN
APP. BY G.K.L. BOERN
DATE 4-21-86

DIMENSION SHEET 613051-510

ISSUE DATE: JULY 31, 1995

C/R 293454, 331724 10-541-00 10-541-05 E:\VIS_ACV\613051\510-SH2

A-C MOTOR
CONNECTION DIAGRAM
STANDARD 3 LEAD Y CONNECTED



(N.P. 1575-BA)

C/R

CUSTOMER _____	CUSTOMER ORDER NO. _____	RELIANCE S.O. NO. _____
RELIANCE ELECTRIC CLEVELAND, OHIO 44117	DR. BY - NEJ CK. BY - SS APP. BY - HE DATE 10/8/76	CONNECTION DIAGRAM 416820-24 ISSUE DATE APRIL 7, 1977

E:\DIAG\416820\024 RAG

10-541-04

REL. S.O.	FRAME	HP	TYPE	PHASE/HERTZ	RPM	VOLTS
	215T	10	P	3/60	3510	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
11.1	CONT	40/F	1.15	B	H	TEFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C (BETWEEN LINES)		
584714	418425-3BE	---	---	1.38		

PERFORMANCE


LOAD	HP	AMPERES	RPM	POWER FACTOR %	EFFICIENCY %
NO LOAD	0	2.8	3600	10.7	0
1/4	2.51	3.8	3579	69.7	87.6
2/4	5.00	5.9	3558	86.8	91.6
3/4	7.50	8.3	3536	91.5	91.9
4/4	10.0	11.1	3511	93.0	91.0
5/4	12.5	14.0	3484	93.2	89.4

SPEED TORQUE

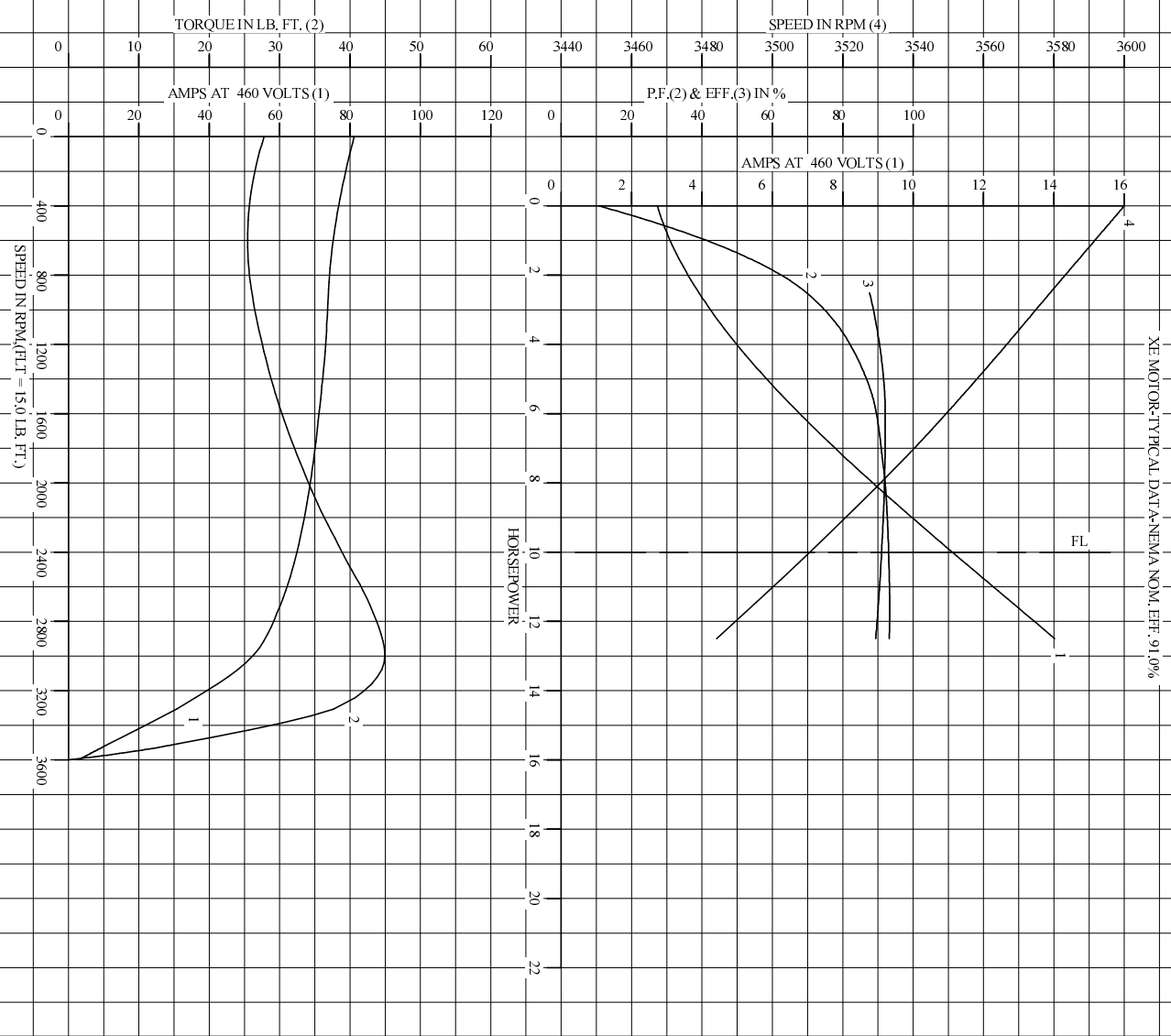
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	186	27.8	81.2
PULL UP	600	170	25.4	75.2
BREAKDOWN	3000	300	45.0	52.4
FULL LOAD	3511	100	15.0	11.1

AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

REMARKS: XE MOTOR-TYPICAL DATA-NEMA NOM. EFF. 91.0%

	DR. BY A. T. LONG	A-C MOTOR PERFORMANCE DATA E01355-A-B002 ISSUE DATE 05/03/96
	CK. BY R. H. KIRK APP. BY R. A. BRYANT DATE 05/03/96	

REL. S.O.	RPM 3510	S.F. 1.15	ROTOR 418425-3BE
FRAME 215T	VOLTS 460	NEMA DESIGN B	TEST S.O. ---
HP 10	AMPS 11.1	CODE LETTER H	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE TEFC	STATOR RES. @ 25 °C 1.38
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 584714	OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

	DR. BY	A. T. LONG	A-C MOTOR PERFORMANCE CURVES E01355-A-B002 ISSUE DATE 05/03/96
	CK. BY	R. H. KIRK	
	APP. BY	R. A. BRYANT	
	DATE	05/03/96	