DESIGN DATA SHEET

DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND

DDS 302-1 Supersedes DDS 302-1, dated 3 May 1979 A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS

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TABLE I: A.C. Motor and Controller Application Requirements

A. References

- 1. MIL-M-17059 Motor, 60-cycle, Alternating-Current Fractional H.P. (Shipboard Use)
- 2. MIL-M-17060 Motors, 60-Hertz, Alternating-Current Integral horsepowers, Shipboard Use
- 3. MIL-C-2212 Controller, Electric Motor, A.C. or D.C. and Associated Switching Devices, Naval Shipboard.

B. Scope

This Design Data Sheet is intended for use as a guide in selecting motors, controllers, and master switches, and shows data applicable to typical motor-driven auxiliaries proposed for installation aboard ship.

C. Abbreviations and Symbols

Abbreviations used in this Design Data Sheet are as follows:

DP	dripproof	OF	oil failure switch
DPP	dripproof protected	РВ	push button
DP ST	double-pole single-throw	PS	pressure switch
EXP	explosion-proof	REQD	required
EXPFC	explosion-proof fan cooled	SBM	submersible
FLS	float switch	SPT	spraytight
HP	high pressure switch	SPTFC	spraytight fan cooled
LP	low pressure switch	TE	totally enclosed
LSW	limit switch	TEFC	totally enclosed fan cooled
LVP	low voltage protection	TS	temperature switch
LVR	low voltage release	WT	watertight
LVRE	low voltage release effect	WTFC	watertight fan cooled
MAG	magnetic		

D. General

The "A.C. Motor Design" column in Table I reflects the Design and Types indicated in References 1 and 2. The definitions of LVP and LVR are as specified in Reference 3.

Table I is provided as a guide and does not modify the requirements of specifications for auxiliaries, or the requirements for the location or application of any specific installation. The time ratings of varying, intermittent, and short-time motors should be, in general, as indicated in Table I, unless there are sufficient tests or service data available to show that a different time rating more closely meets the requirements of the specific application.

For additional and more specific information on equipment requirements and the application of motors and controllers, refer to applicable ship specifications, particularly Sections 300 and 302.

The specifications noted in the "Remarks and Applicable Specifications for Auxiliaries" column of Table I are for illustrative purposes only, and should not be construed as contractual requirements.

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS

		MOTOR	REQUIREMENTS			CONT	ROLLER R	EQUIREMENTS			DEMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL - OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION		ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Auxiliary Propulsion:											
Auxiliary Propulsion Unit	Squirrel Cage/ Constant	В	Continuous	SBM	A	Starting	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	
Retracting System	Squirrel Cage/ Constant	D	Short Time, ½ hour	TE	A	Starting, Reversing	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	
Training System	Squirrel Cage/ Constant	D	Short Time.	TE	٨	Starting, Reversing	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	
Bow Thruster	Squirrel Cage/ Constant	В	Continuous	SBM	A	Starting	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	
Capstan, Warping	Squirrel Cage/ Multispeed	С	Varying, Is hour	DPP, WT	A	Starting, Reversing, Speed Selec-	MAG. LVP	Nonauto- matic	DP or WT	Drum type, Emergency	MIL-C-17944
Capstan, Mooring	Squirrel Cage/ Multispeed	С	Varying, 님 hour	DPP. WT	A	tion Starting, Reversing, Speed Selec-	MAG, LVP	Nonauto- matic	DP or WT	Remote PB Remote, WT Drum type, Emergency	MIL-C-17944
Cleaners, Vacuum	Universal/ Constant	-	Continuous	DPP	С	tion Starting	Manual	-	•	Remote PB	
Foodservice Equipment											
Dumbwaiter	Squirrel Cage/ Varying	D	Intermittent, 날 hour	TE	С	Starting, Reversing	MAG, LVP	Nonauto- matic	DP	Remote PB	

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CONT	ROLLER R	EQUIREMENTS	5		DEMANUE AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL - OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATIONS FOR AUXILIARIE
Foodservce					 		 				
Equipment (Continued):											
Garbage Grinder	Squirrel Cage/ Constant	В	Intermitt e nt 1 hour	SPT, SPTFC	С	Starting	MAG, LVP	Nonauto- matic	DP	Remote PB	
Knife Sharpener	Squirrel Cage/ Constant	В	Short time, % hour	DPP	С	Starting	MAG, LVP	Nonauto- matic	DP	PB	
Machine, Bread-Slicing	Capacity Start/ Constant	-	Continuous	DPP or TE	С	Starting	Manual	-	DP	-	
Machine, Chopping (Grinding) Meat	Squirrel Cage/ Constant	.	Continuous	DPP or TE	С	Starting	Manual	-	DP	-	
(0.4 kW (larger than 1/2 HP))											
Machine, Chopping (Grinding) Meat	Capacity Start/ Constant	-	Continuous	DPP or TE	С	Starting	Manual	-	DP	-	
(0.4 kW(1/2 HP and less))											
Machine, Dishwashing	Squirrel Cage/ Constant	В	Continuous	TE	С	Starting	MAG, LVP	Semi-auto- matic	DP	Local PB	MIL-D-19466

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

	 -										
		MOTOR	REQUIREMENTS			CONT	ROLLER R	EQUIREMENTS	,		
.AUX IL TARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATION FOR AUXILIARIE
Foodservice							 		-		
Equipment Continued):											
Machine, Dough Divider	As Required	8	Intermittent % hour	DPP	С	Starting	Manual	-	DP	-	MIL-D-3886
Machine, Dough Mixing	Squirrel Cage/ Constant	В	Continuous	SPT. SPTFC	С	Starting	MAG.	Nonauto- matic	DP	Remote PB	MIL-D-17013
Machine, Food Mixing (less than (0.4 kW (½ HP))	Squirrel Cage/ Constant	-	Varying, 1 hour	DPP,TE, or TEFC	С	Starting	Manual	-	DP	DPST switch	MIL-M-18900
Machine, Food Mixing (0.4 kw(ち HP) and larger))	Squirrel Cage/ Constant	В		DPP,TE, orTEFC	С	Starting	MAG, LVP	Nonauto- matic or semi-auto matic	DP	Local PB	MIL-M-18900
Machine, Food Shaping	Squirrel Cage/ Constant	В	Continuous	TE	С	Starting	Manual	-	DP	-	MIL-M-40163
Machine, Meat, Bone and Fish Cutting	Squirrel Cage/ Constant	В	Continuous	TE. TEFĊ	С	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	MIL-M-16436

TYPE/ SPEED	A.C. MOTOR DESIGN		ENG	NAVY		OPERA-	 		MASTER	REMARKS AND APPLICABLE
	PESTON	DUTY	ENCL- OSURE	SER- VICE	FUNCTION	PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	SWITCHES	SPECIFICATIONS FOR AUXILIARIE
Squirrel Cage/ Constant	В	Continuous	TE	С	Starting	Manua 1	- , .	DP	-	MIL-M-17312
apacity Start onstant	-	Continuous	TE ,DPP	С	Starting	Manua1	-	DP	-	
quirrel Cage/ onstant	В	Varying, 1 hour	SPT, SPTFC	С	Starting	Manua 1	-	WT	-	
apacity Start/ onstant	-	Varying, 1 hour	TE,DPP	С	Starting	Manual	•	DP	-	
quirrel Cage/ onstant	В	Varying	TE,DPP	С	Starting	Manual	-	DP	-	
quirrel Cage/ onstant	В	Intermittent 1 hour	SPT. SPTFC	С	Starting	Manua]	-	DP	-	
	pacity Start instant pacity Start instant pacity Start/ instant cuirrel Cage/ instant uirrel Cage/	pacity Start - sinstant Buirrel Cage/ Buirre	pacity Start - Continuous pacity Start - Varying, 1 hour pacity Start/ - Varying, 1 hour pacity Cage/ B Varying pacity Cage/ B Varying pacity Cage/ B Varying	pacity Start - Continuous TE,DPP sinstant	pacity Start - Continuous TE,DPP C instant B Varying, 1 SPT, C SPTFC pacity Start/ - Varying, 1 TE,DPP C instant Duirrel Cage/ B Varying TE,DPP C instant B Varying TE,DPP C instant Duirrel Cage/ B Intermittent SPT, C	pacity Start - Continuous TE,DPP C Starting stant SPT, C Starting shour SPTFC Starting shour SPTFC Starting shour SPTFC Starting shour Start SPTFC Starting shour Start SPTFC Starting shour Start SpTFC Starting shour SPTFC Starting shour SPTFC Starting should be shou	pacity Start - Continuous TE,DPP C Starting Manual surrel Cage/ B Varying, 1 SPT, C Starting Manual shour SPTFC START Manual shour SPTFC Starting Manual shour SPTFC Starting Manual shour Start SPTFC Starting Manual shour SPTFC Starting Manual shour SPTFC Starting Manual shour SPTFC Starting Manual shour SPTFC Starting Manual	pacity Start - Continuous TE,DPP C Starting Manual - puirrel Cage/ B Varying, 1 SPT, C Starting Manual - pacity Start/ - Varying, 1 TE,DPP C Starting Manual - pacity Start/ - Varying, 1 TE,DPP C Starting Manual - puirrel Cage/ B Varying TE,DPP C Starting Manual - puirrel Cage/ B Intermittent SPT, C Starting Manual -	pacity Start - Continuous TE,DPP C Starting Manual - DP constant DP continuous TE,DPP C Starting Manual - WT constant DP co	pacity Start - Continuous TE,DPP C Starting Manual - DP - uirrel Cage/ B Varying, 1 SPT, C Starting Manual - WT - pacity Start/ - Varying, 1 TE,DPP C Starting Manual - DP - uirrel Cage/ B Varying TE,DPP C Starting Manual - DP - uirrel Cage/ B Intermittent SPT, C Starting Manual - DP - uirrel Cage/ B Intermittent SPT, C Starting Manual - DP -

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CONTR	OLLER RE	QUIREMENTS			DEMANUE AND
AUX IL IARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATION: FOR AUXILIARIE
mpressor:											
Air Conditioning	Squirrel Cage/ Constant	В	Cont Inuous	DPP	A	Starting	MAG, LVP	Monauto- matic and Automatic	DP	Local TS, PS and PB	MIL-C-23122 MIL-R-16743
Air, Deballast	Squirrel Cage/ Constant	8	Continuous	DPP	A	Starting	MAG, LVP	Automatic	DP	Local and Remote PB	
Air, Diesel Starting	Squirrel Cage/ Constant	В	Continuous	DPP	A	Starting	MAG, LVP	Nonauto- matic and Automatic	DP	Local,Remot HP, PS, LP TS	e MIL-C-18419
Air, Diver	Squirrel Cage/ Constant	В	Cont I nuous	DPP	С	Starting	Manua 1	-	DP	· -	
Air, High Pressure	Squirrel Cage/ Constant	8	Continuous	DPP	A	Starting	MAG, LVP	Automatic	DP	Local PB, HP, LP, TS	MIL-C-18419
Air, Incinerator	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting	MAG, LVP	Nonauto- matic ·	DP	Local PB	
Air, Laundry	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	
Air, Low.Pressure	Squirrel Cage/ Constant	8	Continuous	DPP	٨	Starting	MAG. LVP	Automatic, Nonauto- matic	DP	Local,Remot PB, HP,LP TS, OF	MIL-C-19113

		MOTOR	REQUIREMENTS			CONTR	OLLER RE	QUIREMENTS			REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Compressor (Continued):											
Air, Sewage Holding Tank	Squirrel Cage/ Constant	8	Continuous	DP	С	Starting	MAG. LVP	Nonauto- matic	DP	Local PB, LSW	
Air, Ship Service	Squirrel Cage/ Constant	В	Continuous	DPP	A	Starting	MAG, LVP	Automatic	DP	Remote PB, HP, LP	
O ₂ N ₂ Plant	Squirrel Cage/ Constant	В	Continuous	DPP, SPT	A	Starting	MAG, LVP	Semiauto- matic	DP, WT	Local PB, PS	MIL-S-23639
Prairie Masker	Squirrel Cage/ Constant	В	Continuous	DPP	۸	Starting	MAG. LVP	Nonauto- matic	DP	Local, Remote PB	
Refrigeration, Dispenser, Canned Juice & Ice Cream	Squirrel Cage/ Constant	B .	Continuous	DPP	С	Starting	Manual	-	DP	Local TS	MIL-C-19932
Refrigeration, Drinking Water Coolers	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting	Manua 1	-	DP	Local TS	MIL-C-24166
									,		

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CONT	ROLLER R	EQUIREMENTS			DEMANUE AND
AUX IL IARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE		OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATIONS FOR AUXILIARIES
ompressor (Continued):											
Refrigeration, Frozen Food Cabinet	Squirrel Cage/ Constant	В	Continuous	DPP	C	Starting	Manua 1	-	DP	Local TS	MIL-R-21098
Refrigeration, ice Cream Batch Freezer	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting	MAG, LVR	Automatic	DP	Local PB, TS, HP, LP	
Refrigeration, Ice Making Machine Automatic	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting	Manua 1	-	DP	Local TS, HP	MIL-1-19012
Refrigeration, Refrigerator	Squirrel Cage/ Constant	8	Continuous	DPP	С	Starting	Manua 1	-	DP	Local TS	MIL-R-21098
Refrigeration, Refrigerator-Freezer Combination	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting	Manua 1	-	DP	Local TS	MIL-R-21098
										,	

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CONT	ROLLER RI	EQUIREMENTS			REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE		OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Compressor (Continued):											
Refrigeration, Salad-Dessert Dispensing Bar	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting	Manual	-	DP	Local LP, TS	MIL-D-19645
\$ Refrigeration, Ship Stores Refrigerating Unit Reciprocating Unloaded Start	Squirrel Cage/ Constant	В	Continuous	DPP	A	Starting	MAG, LVP	Automatic	DP	Local or Remote TS PS and PB	MIL-R-16743
Refrigeration, Ship Stores Refrigerating Unit Reciprocating Loaded Start	Squirrel Cage/ Single or Multispeed	С	Continuous	DPP	A	Starting speed selection	MAG. LVP	Monauto- matic and Automatic	DP	Local TS, PS and PB	MIL-R-16743
Refrigeration, Soft Ice Cream Freezer	Squirrel Cage/ Constant	В	Cont1nuous	DPP	С	Starting	Manua1	-	DP	Local TS	
Refrigeration, Under-Counter Refrigerator	Squirrel Cage/ Constant	8	Continuous	DPP	С	Starting	Manua1	-	DP	Local HP and TS	

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CONTR	OLLER RE	EQUIREMENTS			CEMANUE AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Conveyers:											
Pallet and Package	Squirrel Cage/ Constant	B,C	Continuous	As Reqd	С	Starting, Reversing	MAG . LYP	Nonauto- matic	As Reqd	Local Remote PB	
Stores, Vertical	Squirrel Cage/ Constant	8	Continuous	DPP	С	Starting, Reversing	MAG, LVP	Nonauto- matic	DP	ON-OFF switch	MIL-C-23218
rane:						,					
Boat or Aircraft (Electro-Hydraulic)	Squirrel Cage/ Constant	В	Varying, % hour	DPP	A	Starting	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	
Boat or Aircraft (Electric)	Squirrel Cage/	В	Continuous	DPP	۸	Starting	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	
Jib Crane	Squirrel Cage/ Multispeed	D	SP	WT	A	Starting, Reversing	MAG, LVP	Monauto- matic	DP	Remote PB (SBM)	
urtain, Roller	Squirrel Cage/ Varying	С	Short time, % hour	SPT, SPTFC	۸	Starting, Reversing speed selection	MAG, LVP	Monauto- matic		Local. Remote PB	Limit Switche as required

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CONTR	OLLER R	EQUIREMENTS			REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE		OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATION FOR AUXILIARIE
Davit, Rotating Gear	Squirrel Cage/ Varying Speed	D	Short time, % hour	WT	A	Starting, Rev- ersing, speed selection	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	Limit Switch and Interloc as required
Door, Bow and Ramp (Electro-Hydraulic)	Squirrel Cage/ Constant	8	Varying, կ hour	DPP	٨	Starting	MAG, LVP	Nonauto- matic	WT	Local, Remote PB	Limit Switch and Interloc as required
Door, Motor Operated	Squirrel Cage/ Multispeed	D	Short time, % hour	As Reqd	A	Starting, Rev- ersing, speed selection		Nonauto- matic	As Reqd	Remote PB	Limit switch and Interlock as required
levator:											
Aircraft (Electro- Hydraulic)	Squirrel Cage/ Multispeed	B,C	Varying, ½ hour	DPP	A	Starting, speed selec- tion	MAG, LVP	Nonauto- matic	As Reqd	Remote PB	MIL-P-17869
Aircraft (Electric)	Squirrel Cage/ Varying, Multi- speed	D	As Required	SPT SPTFC	٨	Starting Rev- ersing speed selection	MAG, LVP	Nonauto- matic	As Reqd	Remote PB	MIL-E-17807
Bomb (Electro- Hydraulic)	Squirrel Cage/ Constant	В	Varying, 1 hour	As Reqd	A	Starting	MAG, LVP	Nonauto- matic	DP	Remote PB	MIL-P-17869
Bomb, or Torpedo (Electric)	Squirrel Cage/ Varying Multi- speed	D	As Required	As Reqd	A	Starting,Rev- ersing,speed selection	MAG. LVP	Nonauto- matic	DP	Remote Drum or PE	MIL-E-17807

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TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CONT	ROLLER R	EQUIREMENTS	·		
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL- OSURE	NAVY SER- VICE	ļ	OPERA- TION PROTE- CTION		ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATIONS FOR AUXILIARIE
Elevator (Continued):											
Cargo, Main Drive	Squirrel Cage/ Multispeed	D	Intermittent	DPP	A	Starting Rev- ersing speed selection	MAG. LVP	Nonauto- matic	As Req'd.	Remote PB	
Pallet	Squirrel Cage/ Multispeed		Varying. 1 hour	DPP	A	Starting, speed selection	MAG. LVP	Nonauto- matic	DP	Local, Remote PB	
Screw Type	Squirrel Cage/ Varying, Multi- speed	D	As Required	As Reqd	A	Starting Rev- ersing speed selection		Nonauto- matic	DP	Remote PB	
Strike Down	Squirrel Cage/ Varying, Multi- speed	D	As Required	As Reqd	A	Starting Rev- ersing speed selection	MAG, LVP	Monauto- matic	DP	Remote PB	
Small Arms and Freight	Squirrel Cage/ Varying, Multi- speed	D	As Required	As Reqd	٨	Starting Rev- ersing speed selection	MAG. LVP	Nonauto- matic	DP	Remote PB	
Fans:											
Air, Primary	Squirrel Cage/ Constant	В	Continuous	WT	A	Starting	MAG, LVP	Monauto- matic	DP	Local PB	
		1 1	1	- 1	- 1						

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CONT	ROLLER RI	EQUIREMENTS			REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATION: FOR AUXILIARIE
Fans (Contined):								•			
Bracket	Shaded Coil/ Varying, Multi- speed	-	Continuous	DP, DPP	С	Starting	Manua1	•	-	-	MIL-F-68
Centrifugal	Squirrel Cage/ Multispeed or Constant	В	Cont Inuous	TE	A	Starting or Stopping Speed Selec-	MAG, LVP	Nonauto- matic	As Reqd	Local PB	MIL-F-50084
Circulating, Ceiling (Refrigerator Spaces)	Shaded Coil/ Varying	-	Continuous	DP	С	tion Starting	Manual	•	-	-	
Forced Draft, Main or Port Use (Centrifugal or Vaneaxial)	Squirrel Cage/ Multispeed	В	Continuous	DPP	A	Starting, Speed Selection	MAG. LVP	Nonauto- matic	As Reqd	Local, Remote PB	
Ship Service/ Emergency gas turbine generator	Squirrel Cage/ Constant	8	Continuous	DPP	A	Starting	MAG, Lyr	Automatic	DP	Local, Remote PB	MIL-F-18523
enclosure cooling Gland Exhaust	Squirrel Cage/ Constant	В	Continuous	SPTFC	٨	Starting	MAG, LV R	Nonauto- matic	As Reqd	Local PB	
Main Engine cooling	Squirrel Cage/ Multispeed	8	Continuous	SPT	A	Starting, speed Selection	MAG,	Automatic and Non- automatic	DP	Local, Remote PB	

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

			MOTOR	REQUIREMENTS			CONT	ROLLER R	EQUIREMENTS			
	AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL- OSURE	NAVY SER- VICE		OPERA- TION PROTE- CTION	l	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATIONS FOR AUXILIARIES
F	ans (Continued):											
	Portable .	Split Phase/ Constant	В	Continuous	EXP	۸	Starting	Manua 1	-	As Reqd	Local PB	
	Tubeaxial or Propeller Type	Multispeed or Constant	8	Continuous	EXP SPT	A	Starting	MAG, LVR	Nonauto- matic	As Reqd	Local PB	MIL-F-16081,160
	Unit Cooler	Squirrel Cage/ Constant	8	Cont Inuous	DPP	A	Starting	Manual, LVRE	-	DP	-	
	Vaneaxial Type	Squirrel Cage/ Two-speed or Constant	В	Continuous	EXP, SPT	A	Starting Speed Selec- tion	MAG, LVP	Nonauto- matic	As Reqd	Local PB	MIL-F-52608
Ho	ists:											
	Accommodation Ladder	Squirrel Cage/ Constant	D	Cont Inuous	ИT	A	Starting Reversing	MAG, LVP	Monauto- matic	DP	Remote PB (SBM)	
	Ammunition (Hydraulic Dredger)	Capacity Start/ Constant	· B	Varying, & hour	SPT. SPTFC	A	Starting	MAG. LVP	Monauto- matic	WT	Local PB	
										,		

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CONTR	OLLER RE	QUIREMENTS			
		1			·						REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATION FOR AUXILIARIE
Hoists (Continued):											
Monorail	Squirrel Cage/ Variable	C .	Intermitten	DPP	A	Starting Reversing Speed	MAG, LVP	Nonauto- matic	DP	Remote PB (SBM)	MIL-M-82021
Wire Rope and Chain (Hatch, Ammunition, and Stores)	Capacity Start/ Constant	C	Short time, % hour	SPT, WT	A.	Selection Starting Reversing	MAG, LVP	Nonauto- matic	M	Local PB	
Hose Reel	Squirrel Cage/ Constant		Continuous	SPTFC	A	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	MIL-H-38209
Landing Craft Line Delivery System	Squirrel Cage/ Constant	D	Intermitteni	WTFC	A	Starting, Reversing	MAG, LVR	Nonauto- matic	WT	Remote PB (SBM)	
Cargo (Hanger)	Squirrel Cage/ Multispeed	D	Intermittent	DPP	٨	Starting, Reversing, Speed, Sel-	MAG. LVP	Nonauto- matic	DP	Remote PB (SBM)	
Laundry Equipment:						ection					
Dry-Cleaning Outfit	Squirrel Cage/ Constant	As Rega	Varying, 2 hours	TE. _TEFC	С	Starting or Starting and Reversing	MAG, LVP	Automatic	DP	Local PB	MIL-D-18163

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

											
		MOTOR	REQUIREMENTS			CONTR	OLLER RE	QUIREMENTS			25142246 4442
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATION FOR AUXILIARIE
Laundry Equipment (Continued):											
Ironer, Flatwork	Squirrel Cage/ Constant	8	Continuous	TE	С	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	MIL-L-19493
Shaper	Squirrel Cage/ Constant		Continuous	TEFC	С	Starting	MAG. LVP	Nonauto- matic	DP	Lócal PB	
Tumbler, Dryer, Drum	Squirrel Cage/ Constant	В	Continuous	TE	С	Starting	Manua1	•	-	-	MIL-L-19493
Tumbler, Drying (Submarines)	Squirrel Cage/ Constant	-	Continuous	TE, SPT	С	Starting, Réversing	MAG. LVP	Automatic	DP	Local PB	MIL-T-23581
Washer, Extractor	Squirrel Cage/ Constant	FF	Intermittent	TE, TEFC	С	Starting Reversing	MAG, LVP	Automatic	DP	Local PB	MIL-L-19493
Washer, Small Type	Squirrel Cage/ Constant	-	Continuous	TE. TEFC	С	Starting Reversing	MAG, LVP	Automatic	DP	Local PB	
Washer, Heavy Duty (Submarines)	Squirrel Cage/ Constant	. в	Continuous	TE, SPT	С	Starting, Reversing	MAG, LVP	Automatic	DP	Local PB	MIL-W-23554

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CONTE	ROLLER RE	QUIREMENTS			REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATION FOR AUXILIARI
Motor Generator:					-		,				
Arc Welding	Squirrel Cage/ Constant	8	Continuous, 60% duty Cycle	DPP	A	Starting	MAG. LVP	Nonauto- matic	DP	Local PB	
Interior Communication	Squirrel Cage/ Constant	8	Cont inuous	DPP	A	Starting	MAG. LVP	Nonauto- matic	DP	Remote PB	MIL-M-19633
Ship Service and Special Frequency Supply	Squirrel Cage/ Constant	8	Continuous	DPP TEFC	A	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	MIL-M-19633
Printing and Litho- graphic Equipment:											
0ffset Press. 43 X 56 cm (17 X 22 inch) and 56 X 86 cm	Squirrel Cage/ Varying.	. B	Continuous	DPP	С	·Starting, Reversing, Inching	MAG, LVP	Nonauto- matic	DP	Remote PB	
(22 X 34 inch) Offset Press, 36 X 51 cm (14 X 20 inch)	Squirrel Cage/ Constant	ß	Continuous	DPP	С	Starting	MAG. LVP	Nonauto- matic	DP	Remote PB	
Paper Cutting Machine 91 cm (36 inch)	Squirrel Cage/ Constant	8	Continuous	DPP	С	Starting	MAG, LVP	Nonauto- matic	DP	Remote PB	

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CONT	ROLLER RI	EQUIREMENTS		December 1	REMARKS AND
AUX (L TARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE		OPERA- TION PROTE- CTION		ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATION: FOR AUXILIARIE
Printing and Litho- graphic Equipment (Continued):											
Plate-making Machine	Squirrel Cage/ Constant	8	Continuous	DPP	С	Starting	Manual		DP	•	
Temperature Controlled Sink	Squirrel Cage/ Constant	8	Continuous	DPP	С	Starting	MAG.	Automatic	OP	Local TS	
Vacuum Pump (for camera)	Squirrel Cage/ Constant		Continuous	DPP	С	Starting	Manual	-	DP		
Wire Stitcher	Squirrel Cage/ Constant	8	Continuous	DPP	С	Starting	Kanua i	•	DP		
Pumps:											
A/C, Chilled Water	Squirrel Cage/ Constant	8	Cont Inuous	TEFC	A	Starting	MAG. LVP	Monauto- matic	DP .	Local PB	
A/C, Plant Purge	Squirrel Cage/ Constant	8	Continuous	TEFC	۸	Starting	MAG, LVP	Monauto- matic	DP	Local PB	

A.C MOTO DESIG T Cage/ B	R	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATIONS FOR AUXILIARIES
t	Cont Inuous	DPP	A						
t	Cont Inuous	DPP	A	MOSE DE LA CONTRACTION DE LA C		8			
	•			Starting	MAG. LVR	Nonauto- matic	DP	Local and Remote PB	
1 Cage/ B	Continuous	DPP	A	Starting	MAG.	As Reqd	DP	As Regd	i L
l Cage/ B	Cont inuous	TEFC	A	Starting	MAG. LVR	Nonauto- matic	DP	Remote PB	
l Cage/ B	Cont Inuous	TEFC	A	Starting	MAG. LVR	Nonauto- matic	DP	Remote PB	
l Cage/ B	Continuous	TE. TEFC	A	Starting	MAG. LVP	Monauto- matic	DP	Local. Remote PB	MIL-P-17840
Cage/ B	Continuous	WTFC	A	Starting	MAG. LVR	Nonauto- matic	DP	Remote PB	
Cage/ B	Continuous	DPP	۸	Starting	Manual, LVRE	c ps	DP	Local PB	
	Cage/ B Cage/ B Cage/ B Cage/ B	Cage/ B Continuous Cage/ B Continuous Cage/ B Continuous Cage/ B Continuous	Cage/ B Continuous TEFC Cage/ B Continuous TE. TEFC Cage/ B Continuous WTFC Cage/ B Continuous DPP	Cage/ B Continuous TEFC A Cage/ B Continuous TE. A TEFC Cage/ B Continuous WTFC A Cage/ B Continuous DPP A	Cage/ B Continuous TEC A Starting Cage/ B Continuous TE. A Starting Cage/ B Continuous WTFC A Starting Cage/ B Continuous DPP A Starting	Cage/ B Continuous TEFC A Starting MAG. Cage/ B Continuous TE. A Starting MAG. LVP Cage/ B Continuous MTFC A Starting MAG. LVP Cage/ B Continuous MTFC A Starting MAG. LVR	Cage/ B Continuous TEFC A Starting MAG, Nonauto-matic Cage/ B Continuous TE, A Starting MAG, Nonauto-matic Cage/ B Continuous WTFC A Starting MAG, Nonauto-matic Cage/ B Continuous WTFC A Starting MAG, Nonauto-matic	Cage/ B Continuous TEFC A Starting MAG, Nonauto-matic Cage/ B Continuous TE, A Starting MAG, Nonauto-matic Cage/ B Continuous MTFC A Starting MAG, Nonauto-matic Cage/ B Continuous MTFC A Starting MAG, Nonauto-matic Cage/ B Continuous DPP A Starting Manual, - DP	LVR matic Cage/

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TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

	HOTOR	REQUIREMENTS			CONT	ROLLER RI	EQUIREMENTS			0544046
TYPE/ SPEED			ENCL- OSURE	NAVY SER- VICE	FUNCTION	TION	l	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Squirrel Cage/ Constant	B	Continuous	SBM	A	Starting	MAG.	Nonauto- matic	DP	Remote PB	
Squirrel Cage/ Varying	В	Continuous	TEFC	С	Starting	MAG,	Nonauto- matic	WT	Local PB, PS	
Squirrel Cage/ Varying	В	Continuous	DPP. TEFC	A	Starting	MAG, LVR	Automatic	TE	Local PB	
Squirrel Cage/ Constant	В	Short time	DPP TEFC	A	Starting	MAG, LVP	Nonauto- matic, Automatic	DP	Local, Remote PB, PS	MIL-Y-18683
Squirrel Cage/ Constant	В	As Reqd	DPP	С	Starting	Manual	-	-	-	
Squirrel Cage/ Constant	8	Continuous	TEFC	A	Starting	MAG, LVR	Automatic and Non- automatic	DP	Local, Remote PB	
	SQUITTED Cage/Constant Squirrel Cage/Varying Squirrel Cage/Varying Squirrel Cage/Constant Squirrel Cage/Constant Squirrel Cage/Constant	TYPE/ SPEED A.C. MOTOR DESIGN Squirrel Cage/ B Squirrel Cage/ B	TYPE/ SPEED MOTOR DESIGN DUTY Squirrel Cage/ B Continuous Squirrel Cage/ B Continuous Squirrel Cage/ B Continuous Squirrel Cage/ B Short time Squirrel Cage/ B As Reqd Squirrel Cage/ B Continuous	TYPE/ MOTOR DESIGN DUTY ENCL-OSURE Squirrel Cage/ B Continuous SBM Squirrel Cage/ B Continuous TEFC Squirrel Cage/ B Continuous DPP. TEFC Squirrel Cage/ B Short time DPP TEFC Squirrel Cage/ B As Reqd DPP Constant Squirrel Cage/ B Continuous TEFC	TYPE/ MOTOR DESIGN DUTY ENCL- SER- VICE Squirrel Cage/ B Continuous SBM A Squirrel Cage/ B Continuous TEFC C Squirrel Cage/ B Continuous DPP. A TEFC Squirrel Cage/ B Short time DPP TEFC Squirrel Cage/ B As Reqd DPP C Squirrel Cage/ B Continuous TEFC A Squirrel Cage/ B Continuous TEFC A	TYPE/ MOTOR DESIGN DUTY ENCL- OSURE SER- FUNCTION Squirrel Cage/ B Continuous SBM A Starting Squirrel Cage/ B Continuous TEFC C Starting Squirrel Cage/ B Continuous DPP. A Starting Squirrel Cage/ B Short time DPP TEFC Squirrel Cage/ B As Reqd DPP C Starting Squirrel Cage/ B As Reqd DPP C Starting Squirrel Cage/ B Continuous TEFC A Starting	TYPE/ MOTOR DESIGN DUTY ENCL- SER- FUNCTION OPERATION Squirrel Cage/ B Continuous SBM A Starting MAG, LVP Squirrel Cage/ B Continuous TEFC C Starting MAG, LVP Squirrel Cage/ B Continuous DPP, A Starting MAG, LVP Squirrel Cage/ B Short time DPP TEFC Squirrel Cage/ B As Reqd DPP C Starting MAG, LVP Squirrel Cage/ B As Reqd DPP C Starting MAG, LVP Squirrel Cage/ B Continuous TEFC A Starting MAG, LVP	TYPE/ MOTOR DESIGN DUTY SQUIRTEL Cage/ B Continuous SBM A Starting MAG, Nonautomatic Squirrel Cage/ B Continuous DPP, TEFC Squirrel Cage/ B Short time DPP C Starting MAG, Nonautomatic, Automatic Squirrel Cage/ B Short time DPP C Starting Manual -	TYPE/ MOTOR DESIGN DUTY ENCL- SER- FUNCTION PROTE- PERFOR- ENCL- OSURE Squirrel Cage/ B Continuous TEFC C Starting MAG, Nonauto- MT Warying B Continuous DPP, TEFC A Starting MAG, Automatic TE Squirrel Cage/ B Short time DPP TEFC A Starting MAG, Nonauto- LVP Matic, Automatic TE Squirrel Cage/ B Continuous DPP C Starting MAG, Nonauto- LVP Matic, Automatic TE Squirrel Cage/ B Short time DPP TEFC A Starting MAG, Nonauto- LVP Matic, Automatic TE Squirrel Cage/ B As Reqd DPP C Starting MAG, Automatic DP Matic, Automatic DP Magic	TYPE/ MOTOR DESIGN DUTY ENCL- SER- FUNCTION PROTE- PERFORMANCE ENCL- SWITCHES Squirrel Cage/ B Continuous TEFC C Starting MAG, Nonauto- MT Local PB, PS Squirrel Cage/ B Continuous DPP, A Starting MAG, Automatic TE Local PB Squirrel Cage/ B Short time DPP TEFC A Starting MAG, Nonauto- MT Local PB, PS Squirrel Cage/ B Short time DPP TEFC A Starting MAG, Nonauto- MT Local PB, PS Squirrel Cage/ B Short time DPP TEFC A Starting MAG, Automatic TE Local PB Squirrel Cage/ B Short time DPP TEFC A Starting MAG, Automatic TE Local PB, PS Squirrel Cage/ B As Reqd DPP C Starting MAG, Automatic DP Local, Remote PB, PS Squirrel Cage/ B Continuous TEFC A Starting MAG, Automatic DP Local, Remote PB, PS Squirrel Cage/ B Continuous TEFC A Starting MAG, Automatic DP Local, Remote PB, PS

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			co	NTROLLER	REQUIREMEN	ITS		REMARKS AND
AUX IL I ARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION		ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATION FOR AUXILIARIE
Pumps (Continued):											
Continuous Wave											
Illuminator (CNI)Circulating	Squirrel Cage/ Constant	8	Continuous	TEFC	A	Starting	MAG. LVP	Nonauto- matic	DP	Local PB	
Demineralized Water Circulate	Squirrel Cage/ Constant	8	Continuous	TEFC	A	Starting	MAG, LVP	Nonauto- matic	DP	Local PB and PS	
Distilling Plant Pumps:											
Booster	Squirrel Cage/ Constant	8	Continuous	TEFC	A	Starting	MAG. LVP	Nonauto- matic	DP	Remote PB	
Brine Overboard	Squirrel Cage/ Constant	В	Continuous	DPP, TE	٨	Starting	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	
Circulating	Squirrel Cage/ Constant	В	Continuous	TE, TEFC	٨	Starting	MAG, LVP	Nonauto- matic	DP	Local. Remote PB	
Condensate	Squirrel Cage/ Constant	8	Continuous	TE, TEFC	٨	Starting	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	MIL-P-18472

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

REMARKS AND		TS	REQUIREMEN	NTROLLER	co			REQUIREMENTS	MOTOR		
APPLICABLE SPECIFICATION FOR AUXILIARIE	MASTER SWITCHES	ENCL- OSURE	PERFOR- MANCE	OPERA- TION PROTE- CTION	FUNCTION	NAVY SER- VICE	ENCL- OSURE	DUTY	A.C. MOTOR DESIGN	TYPE/ SPEED	AUXILIARY NAME
											Pumps (Continued):
MIL-P-17840	Local PB	DP	Monauto- matic	MAG. LVP	Starting	A .	TEFC	Continuous	8	Squirrel Cage/ Constant	Distiller Distillate
	Local PB	DP	Monauto- matic	MAG, LVP	Starting	A	TEFC	Continuous	B	Squirrel Cage/ Constant	Distiller SW Feed
	Remote PB		Nonauto- matic	MAG, LVP	Starting	A	TEFC	Continuous	В	Squirrel Cage/ Constant	Distiller Heater Drain
	Local PB	DP	Nonauto- matic	MAG. LVR	Starting	C	DPP TEFC	Continuous	8	Squirrel Cage/ Constant	Distiller Plant Chemical Feed
	Local, Remote PB	DP	Monauto- matic	MAG. LVP	Starting	A	SPT, SPTFC	Continuous	В	Squirrel Cage/ Constant	Evaporator Feed
	Local, Remote PB	DP	Monauto- matic	MAG, LVP	Starting	A	TE. TEFC	Cont 1 nuous	В	Squirrel Cage/ Constant	Tube Nest Drain
,	-	DP	-	Manua 1	Starting	A	TE, WT	Continuous	8	Squirrel Cage/ Constant	Eductor Supply
						••					

		MOTOR	REQUIREMENTS			CC	ONTROLLER	REQUIREMEN	NTS		DCMANA AL-
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL- OSURE	NAVY SER- VICE		OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Pumps (Continued):	·				 						
Electronic Cooling and Chilled Water	Squirrel Cage/ Constant	8	Continuous	TE	٨	Starting	MAG, LVP	Nonauto- matic	DP	PB	·
Elevator Oil Supply	Squirrel Cage/ Constant	B	Short time, 1 hour	DPP	A	Starting	MAG. LVP	Automatic	DP	Remote PB, FLS	
Elevator, Aircraft, Main	Squirrel Cage/ Constant	8	Continuous	DPP	A	Starting	MAG, LVP	Automatic	DP	Local PB	
Emergency, Booster and Reserve Feed Transfer	Squirrel Cage/ Constant	8	Cont inuous	DPP	A	Starting	MAG. LVR	Nonauto- matic, Automatic	DP	Local, Remote PB, PS	
Fire	Squirrel Cage/ Constant	В	Continuous	TEFC	A	Starting	MAG. LVP	Nonauto- matic	DP	Local PB	
Fresh Water Drain Collecting Tank	Squirrel Cage/ Constant	8	Continuous	TE	A	Starting	MAG, LVP	Monauto- matic	DP	PB	
Fresh Water Service	Squirrel Cage/ Constant	8	Continuous	TEFC	A	Starting	MAG. LVP	Automatic	DP ·	Local, Remote PB, PS	

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TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.).

		MOTOR	REQUIREMENTS			CO	NTROLLER	REQUIREMEN	ITS		REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL - OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXILIARIE
mps (Continued):											
Fresh Water Booster	Squirrel Cage/ Constant	В	Continuous	TEFC	A	Starting	MAG. LVP	Automatic	DP	Local PB, PS	
Fuel-Oil Service, Port and Cruising	Squirrel Cage/ Multispeed	В	Continuous	TE, TEFC	A	Starting, Speed Selection	MAG. LVP	Nonauto- matic	DP	Remote PB	
Fuel-Oil Tank Drain	Squirrel Cage/ Constant	В	Continuous	TE, TEFC	۸	Starting	MAG. LVP	Nonauto- matic	DP	Remote PB	
Fuel-011 Transfer	Squirrel Cage/ Multispeed	С	Continuous	TE, TEFC	۸	Starting, Speed Selection	MAG. LVP	Nonauto- matic	TE	Local PB	
Gasoline Defueling	Squirrel Cage/ Constant	8	Continuous	EXP,	A	Starting	MAG, LVP	Monauto- matic	EXP	Local, Remote PB (EXP)	
Gas Turbine Wash Module	Squirrel Cage/ Constant	8	Continuous	TEFC	۸	Starting	MAG, LVR	Monauto- matic	DP	Local, Remote PB	
Hot Fresh Water Recirculating	Squirrel Cage/ Constant	8	Continuous	TEFC	A	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		HOTOR	REQUIREMENTS			c c	ONTROLLE	R REOUIREME	NTS		REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	l	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATION FOR AUXILIARIE
Pumps (Continued):											
Hot Water Circulating	Squirrel Cage/ Constant	8,	Continuous	TEFC	A	Starting	MAG, LVP	Monauto- matic	DP	Local PB	
Incinerator Feedwater cooling	Squirrel Cage/ Constant	8	Continuous	DPP	A	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	
Incinerator Ignition 011	Squirrel Cage/ Constant	В	Continuous	TEFC	A	Starting	Manua 1	-	TE	-	
Incinerator Oil	Squirrel Cage/ Constant	8	Continuous	TEFC	A	Starting	Manua1	-	TE	-	
Infrared (IR) Suppression	Squirrel Cage/ Constant		Continuous	DPP	A	Starting		Monauto- matic	DP	Local PB	
Injection, 76mm Gun	Squirrel Cage/ Constant	B	Continuous	TEFC	٨	Starting		Nonauto- matic	DP	Local, Remote PB	
Incinerator, Rotating Grate	Squirrel Cage/ Constant	В	Cont Inuous	TEFC	A .	Starting	Manua 1	•	DP	-	

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

ı		MOTOR	REQUIREMENTS			co	NTROLLER	REQUIREMEN	TS		REMARKS AND
 AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Pumps (Continued):			,						,		
JP-5 Auxiliary Service	Squirrel Cage/ Constant	В	Continuous	TEFC	A	Starting	MAG, LVP	Nonauto- matic	TE	Local, Remote PB	
JP-5 Defueling	Squirrel Cage/ Constant	В	Continuous	TE, TÉFC	٨	Starting	MAG, LVP	Nonauto- matic	TE	LocaT PB	MIL-P-19131
JP-5 Priming	Squirrel Cage	В	Short time, 3 Hinutes	TE. TEFC	٨	Starting, Dual Control	MAG, LVP	Nonauto- matic	TE	Local, Remote PB	MIL-P-18683
JP-5 Service	Squirrel Cage/ Constant	В	Continuous	TE, TEFC	A	Starting	MAG, LVP	Nonauto- matic	TE	Local PB	MIL-P-17639
JP-5 Stripping	Squirrel Cage/ Constant	В	Short time, 3 Minutes	TE. TEFC	٨	Starting	MAG, LVP	Nonauto- matic	TE	Local PB	MIL-P-19131
JP-5 Transfer	Squirrel Cage/ Constant	В	Continuous	TE, TEFC	۸	Starting	MAG, LVP	Nonauto- matic	TE	Local PB	MIL-P-19131

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		ITS	REQUIREMEN	NTROLLER	co			REQUIREMENTS	MOTOR			
REMARKS AND APPLICABLE SPECIFICATION FOR AUXILIARIE	MASTER SWITCHES	ENCL- OSURE	PERFOR- MANCE	OPERA- TION PROTE- CTION	FUNCTION	NAVY SER- VICE	ENCL- OSURE		A.C. MOTOR DESIGN	TYPE/ SPEED	AUXILIARY NAME	
											Pumps (Continued):	í
MIL-F	Local PB	DP	Nonauto- matic	MAG, LVP	Starting	A	TE	Continuous	В	Squirrel Cage/ Constant	Low Pressure Steam Drain Transfer	
	Remote PB	DP	Nonauto- matic	MAG, LVR	Starting, Speed Selection	A	TEFC	Continuous	В	Squirrel Cage/ Hultispeed	Lube-oil	L
	Remote PB	DP	Monauto- matic	MAG. LVP	Starting	A	TE	Continuous	D	Squirrel Cage/ Constant	Lube-oil F.D. Fan	
	Remote PB	DP	Nonauto- matic		Starting	A	TE	Continuous	8	Squirrel Cage/ Constant	Lube-oil Pump, turbine-driven Fire Pump	t
	Remote PB	DP	Nonauto- matic		Starting	A	TE	Varying	В	Squirrel Cage/ Constant	Lube-oil Pump, Main, Feed Pump	
	Remote PB	DP			Speed	A	TEFC	Continuous	8	Squirrel Cage/ Multispeed	Lube-oil Pump, Main, Service	
				Merrian er eine in gestellt der eine								
P I I	APF SPECI FOR A	MASTER SPECIFOR AND SPECIFOR AN	ENCL-OSURE MASTER SHITCHES SPECIFOR AND SPE	REQUIREMENTS PERFOR- ENCL- OSURE Nonauto- DP Local PB MIL- Monauto- DP Remote PB Martic Honauto- DP Remote PB Martic Nonauto- DP Remote PB Martic	NTROLLER REQUIREMENTS OPERA- TION PROTE- CTION PAG, Nonauto- LVP MAG, Nonauto- LVR MAG, Nonauto- LVP MAG, Nonauto- LVR	CONTROLLER REQUIREMENTS OPERATION PROTE- CTION PERFOR- MANCE DP Local PB MIL- Starting. Starting. Speed LVR Selection Starting MAG, Nonauto- Starting MAG, Nonauto- matic MAG, Nonauto- matic DP Remote PB Starting MAG, Nonauto- matic DP Remote PB	CONTROLLER REQUIREMENTS NAVY SER- VICE FUNCTION A Starting MAG, Nonauto- MAG, Nonau	CONTROLLER REQUIREMENTS CONTROLLER REQUIREMENTS	REQUIREMENTS CONTROLLER REQUIREMENTS DUTY ENCL- OSURE NAVY SER- OSURE FUNCTION PROTE- CTION MAG, Nonauto- matic DP Remote PB Continuous TE A Starting Selection Continuous TE A Starting MAG, Nonauto- matic DP Remote PB Continuous TE A Starting MAG, Nonauto- matic DP Remote PB Continuous TE A Starting MAG, Nonauto- matic DP Remote PB Continuous TE A Starting MAG, Nonauto- matic DP Remote PB Continuous TE A Starting MAG, Nonauto- matic DP Remote PB Continuous TE A Starting MAG, Nonauto- matic DP Remote PB Continuous TE A Starting MAG, Nonauto- matic DP Remote PB Continuous TE A Starting MAG, Nonauto- matic DP Remote PB Continuous TE A Starting MAG, Nonauto- matic DP Remote PB	MOTOR REQUIREMENTS CONTROLLER REQUIREMENTS A.C. MOTOR DESIGN DUTY ENCL- SER- OSURE FUNCTION FUNCTION PROTE- PERFOR- MANCE SUBJECT OSURE MAG. Nonauto- DP Local PB MIL- B Continuous TEFC A Starting MAG. LVR matic D Continuous TE A Starting MAG. Nonauto- DP Remote PB MAG. LVR matic B Continuous TE A Starting MAG. Nonauto- DP Remote PB MAG. Nonauto- MAG. MAG. Nonauto- MA	TYPE/ MOTOR REQUIREMENTS A. C. MOTOR DESIGN DUTY SQUIRED CONTROLLER REQUIREMENTS SQUIRED CONTROLLER REQUIREMENTS TYPE/ SPEED A. C. MOTOR DESIGN DUTY ENCL- OSURE FUNCTION TOPERA- TION PROTE- PERFOR- ENCL-OSURE FUNCTION MAG. Nonauto- DP Local PB MIL- SQUIRED CONTROLLER REQUIREMENTS MAG. PERFOR- ENCL-OSURE MAG. Nonauto- DP Remote PB MIL- SQUIRED CONTROLLER REQUIREMENTS A Starting MAG. Nonauto- DP Remote PB MIL- SQUIRED CASE SQUIRED CASE FUNCTION MAG. Nonauto- DP Remote PB MIL- SQUIRED CASE SQUIRED	AUXILIARY TYPE/ SPEED DESIGN DUTY ENCL- OSURE FUNCTION PROTE- PERFOR- ENCL- OSURE SHITCHES SPEED Purps (Continued): Low Pressure Steam Drain Transfer Constant Squirrel Cage/ B Continuous TE A Starting MAG, Nonauto- DP Remote PB Mill- DP Fan Squirrel Cage/ Constant Squirrel Cage/ D Continuous TE A Starting MAG, Nonauto- DP Remote PB Mill- DP Fan Squirrel Cage/ Constant Squirrel Cage/ D Continuous TE A Starting MAG, Nonauto- DP Remote PB Mill- DP Fan Squirrel Cage/ Constant Squirrel Cage/ D Continuous TE A Starting MAG, Nonauto- DP Remote PB Mill- DP Fan Squirrel Cage/ Constant Squirrel Cage/ B Continuous TE A Starting MAG, Nonauto- DP Remote PB Mill- DP Fan Squirrel Cage/ Constant Squirrel Cage/ B Continuous TE A Starting MAG, Nonauto- DP Remote PB Mill- Mil

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			со	NTROLLER	REQUIREMEN	TS		REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATION: FOR AUXILIARIE
Pumps (Continued):											
Lube-oil, turbine generator set (STBY)	Squirrel Cage/ Constant	8	Continuous	TEFC	٨	Starting	MAG, LVR	Automatic	DP	Remote PB and PS	
Macerator Sewage	Squirrel Cage/ Constant	8	Continuous	TE, TEFC	С	Starting. Reversing	MAG, LVP	Automatic and Non- automatic	DP	Local PB, LSW ·	
Machinery Waste Water Drain	Squirrel Cage/ Constant	В	Continuous	TEFC, WT	۸	Starting	MAG, LVP	Nonauto- matic	DP	Local PB, LSW	
Main Condenser Con- densate	Squirrel Cage/ Constant	.	Continuous	WTFC	A	Starting	MAG, LVR	Nonauto- matic	DP	Remote PB	
Main Condenser Cir- culating	Squirrel Cage/ Multispeed	8	Continuous	DPP	A	Starting, Speed Selection	MAG. LVP	Nonauto- matic	DP	Local, Remote PB	
Main Feed Booster	Squirrel Cage/ Constant	В	Continuous	DPP	A	Starting -	MAG. LVR	Nonauto- matic	DP	Local PB	
				1							

		MOTOR	REQUIREMENTS	,		co	NTROLLER	REQUIREMEN	TS		
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL- OSURE	NAVY SER- VICE		OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATION FOR AUXILIARIE
Pumps (Continued):											
Mogas Service	Squirrel Cage/ Constant	В	Continuous	EXPFC	A	Starting		Nonauto- matic	DP	Remote PB	
Mogas Stripping	Squirrel Cage/ Constant	В	Continuous	EXPFC	A	Starting		Monauto- matic	DP.	Remote PB	
Mogas Salt Water Service	Squirrel Cage/ Constant	В	Continuous	EXPFC	٨	Starting		Nonauto- matic	DP	Remote PB	
Portable Submersible	Squirrel Cage/ Constant	В	Continuous	SBM, (15 FT)	A	Starting	Manual LVRE	-	MT	-	
Potable Water	Squirrel Cage/ Constant	В	Continuous	5m. TEFC, SPT, WI SPTFC,	À	Starting		Nonauto- matic	DP.	Local PB, PS	
Potable Water Priming	Squirrel Cage/ Varying	-	Continuous	WITFC TE	A	Starting	MAG, LVP	Automatic	DP	Local PB, Vacumm SW	

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

	MOTOR	MOTOR REQUIREMENTS				CONTROLLER REQUIREMENTS				REMARKS AND
TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Squirrel Cage/ Constant	8	Continuous	DPP	A	Starting	MAG. LVP	Nonauto- matic	DP	Local PB	
Squirrel Cage/ Constant	В	Continuous	DPP	A -	Starting	MAG. LVP	Nonauto- matic	DP	Local'PB	
Squirrel Cage/ Constant	В	Continuous	SBM	A	No Controller Required	-	-	-	-	MIL-P-17639
Squirrel Cage/ Constant	В	Continuous	TE, TEFC	٨	Starting	MAG, LVR	Nonauto- mátic	DP	Local, Remote PB	Interlock Swite With Suction & Discharge Valve
Squirrel Cage/ Constant	8	Continuous	TE, TEFC	٨	Starting	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	
Squirrel Cage/ Constant	В	Continuous	EXPFC	A .	Starting	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	MIL-P-17639
	Squirrel Cage/Constant Squirrel Cage/Constant Squirrel Cage/Constant Squirrel Cage/Constant Squirrel Cage/Constant Squirrel Cage/Constant Squirrel Cage/Constant	TYPE/ SPEED A.C. MOTOR DESIGN Squirrel Cage/ Constant Squirrel Cage/ B Squirrel Cage/ B	TYPE/ SPEED A.C. MOTOR DESIGN DUTY Squirrel Cage/ B Continuous Squirrel Cage/ B Continuous	TYPE/ SPEED DATA A.C. MOTOR DESIGN DUTY Squirrel Cage/ B Continuous DPP Squirrel Cage/ B Continuous SBM Squirrel Cage/ B Continuous SBM Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ B Continuous EXPFC	TYPE/ SPEED A.C. MOTOR DUTY Squirrel Cage/ B Continuous DPP A Squirrel Cage/ B Continuous DPP A Squirrel Cage/ B Continuous SBM A Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ B Continuous EXPFC A	TYPE/ MOTOR DESIGN DUTY ENCL- SER- FUNCTION Squirrel Cage/ B Continuous DPP A Starting Squirrel Cage/ B Continuous DPP A Starting Squirrel Cage/ B Continuous SBM A No Controller Required Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ B Continuous EXPFC A Starting	TYPE/ MOTOR DESIGN DUTY ENCL- OSURE FUNCTION PROTE-CTION Squirrel Cage/ B Continuous DPP A Starting MAG, LVP Squirrel Cage/ B Continuous SBM A No Controller Constant Squirrel Cage/ B Continuous SBM A No Controller Required Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ B Continuous EXPFC A Starting MAG, LVP	TYPE/ MOTOR DUTY SENCL- OSURE FUNCTION Squirrel Cage/ B Continuous DPP A Starting MAG, Honauto-matic Squirrel Cage/ B Continuous SBM A No Controller Constant Squirrel Cage/ B Continuous SBM A Starting MAG, Nonauto-matic Squirrel Cage/ Constant Squirrel Cage/ B Continuous SBM A Starting MAG, Nonauto-matic Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-matic Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-matic Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-matic Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-matic Squirrel Cage/ B Continuous EXPFC A Starting MAG, Nonauto-matic	TYPE/ MOTOR DESIGN DUTY Squirrel Cage/ B Continuous DPP A Starting MAG, Nonauto-LYP matic Squirrel Cage/ B Continuous SBM A No Controller Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-LYR matic Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-LYR matic Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-LYR matic Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-LYR matic Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-LYR matic Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-LYR matic Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-DP matic	TYPE/ MOTOR DESIGN DUTY ENCL- SERVICE FUNCTION DEFRA- TION PROTE- CTION PROTE-CTION PRO

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			C	ONTROLLER	REQUIREME	NTS		
AUX IL I ARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL- OSURE	NAVY SER- VICE		OPERA- TION PROTE- CTION	1	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATION FOR AUXILIARIES
Pumps (Continued);											
Sonar Cooling	Squirrel Cage/ Constant	8	Continuous	TEFC	A	Starting	MAG, LVP	Nonauto- matic	DP	Local, Remote PB	
SSTG Condenser Circu- lating	Squirrel Cage/ Multispeed	В	Continuous	TE, TEFC	A	Starting, Speed Selection		Nonauto- matic	DP	Local PB	MIL-P-17840
SSTG Condenser Conden- sate	Squirrel Cage/ Constant	8	Continuous	TE '	٨	Starting		Nonauto- matic	DP	Local PB	MIL-P-18472
Sewage	Squirrel Cage/ Constant	В	Continuous	TEFC	С	Starting	LVP	Automatic and Non- automatic	DP	Remote PB, LSW	
Sewage Comminutor	Squirrel Cage/ Constant	8	Continuous	TEFC	С	Starting		Nonauto- matic	DP	Local PB	
Sewage Ejector	Squirrel Cage/ Constant	8	Continuous	TE	A	Starting		Semiauto- matic	DP	Local, Remote PB, LSW	

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

	·	MOTOR	REQUIREMENTS			co	ONTROLLER	REQUIREMEN	ITS		REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Pumps (Continued):											
Vacuum, Main Condenser	Squirrel Cage/ Constant	8	Continuous	TEFC	٨	Starting	MAG, LVR	Monauto- matic	DP	Remote PB	
Waste Heat, Hot Water Circulating	Squirrel Cage/ Constant	В	Continuous	TE. TEFC	A	Starting	MAG. LVR	Automatic Manual	DP	Local PB, PS	
Waste Water Bilge Sump Tank	Squirrel Cage/ Constant	В	Continuous	TE	A	Starting	MAG, LVP	Automatic	DP	FLS	
Water Barrier	Squirrel Cage/ Constant	D	intermitte nt	WT	A	Starting, Reversing	MAG, LVP	Nonauto- matic	SBM	Local, Remote PB (SBM)	
Purifiers:	,										
Diesel Fuel Oil	Squirrel Cage/ Constant	8	Continuous	TE, TEFC	A	Starting	MAG. LVP	Nonauto- matic	DP	Local PB	·
JP-5	Squirrel Cage/ Constant	В	Continuous	TEFC	A	Starting	MAG, LVP	Semiauto- matic	DP	Local PB	MIL-P-22088

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

	-				u	MIKOLLEK	REQUIREMEN	ITS		05
TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCI OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATION FOR AUXILIARIE
Squirrel Cage/ Constant	8	Continuous	TE, TEFC	٨	Starting	MAG. LVP	Nonauto- matic	DP	Local PB	
Squirrel Cage/ Varying, High Slip	D	Continuous	DPP	A	Starting, Reversing			DP	Local PB	
					•					
Squirrel Cage/ Constant		Short time	DPP	С	Starting	Manua l	-	DP	Switch	
Squirrel Cage/ Constant	В	Continuous	DPP	С	Stärting	MAG, LVP	Nonauto- matic	DP	Local PB	
Squirrel Cage/ Constant	B	Varying, 1 hour	SPTFC WT, WTFC	С	Starting	MAG, LVP	Nonauto- matic	WT .	Local PB	W-G-656
Squirrel Cage/ Constant	8	Continuous	DPP. TE			MAG. LVP	Monauto- matic	DP	Local PB	00-L-125
				1						
	Constant Squirrel Cage/ Varying, High Slip Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ Constant	Squirrel Cage/ B Squirrel Cage/ Varying, High Slip Squirrel Cage/ Constant Squirrel Cage/ B Squirrel Cage/ B Squirrel Cage/ B Squirrel Cage/ B Squirrel Cage/ B	Squirrel Cage/ B Continuous Squirrel Cage/ D Continuous Squirrel Cage/ Short time Squirrel Cage/ B Continuous Squirrel Cage/ B Varying, I hour Squirrel Cage/ B Continuous	Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ D Continuous DPP Varying, High Slip Squirrel Cage/ Short time DPP Constant Squirrel Cage/ B Continuous DPP Squirrel Cage/ B Varying, SPTFC MT, WTFC Squirrel Cage/ B Continuous DPP,	Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ D Continuous DPP A Squirrel Cage/ Short time DPP C Squirrel Cage/ B Continuous DPP C Squirrel Cage/ B Continuous DPP C Squirrel Cage/ B Varying, SPTFC C Squirrel Cage/ B Continuous DPP, C Squirrel Cage/ B Continuous DPP, C	Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ D Continuous DPP A Starting, Reversing Squirrel Cage/ Short time DPP C Starting Squirrel Cage/ B Continuous DPP C Starting Squirrel Cage/ B Varying, SPTFC C Starting Squirrel Cage/ B Varying, SPTFC C Starting Squirrel Cage/ B Continuous DPP, C Starting Squirrel Cage/ B Continuous DPP, C Starting.	Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, LVP Squirrel Cage/ Varying, High Slip Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ B Continuous DPP C Starting MAG, LVP Squirrel Cage/ B Continuous DPP C Starting MAG, LVP Squirrel Cage/ B Varying, SPTFC C Starting MAG, LVP Squirrel Cage/ B Varying, SPTFC C Starting MAG, LVP Squirrel Cage/ B Continuous DPP, C Starting MAG, LVP Squirrel Cage/ B Continuous DPP, C Starting, MAG, LVP	Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Honautomatic Squirrel Cage/ D Continuous DPP A Starting, Reversing MAG, LVP Matic Squirrel Cage/ Constant DPP C Starting MAG, Honautomatic Squirrel Cage/ B Continuous DPP C Starting MAG, Nonautomatic Squirrel Cage/ B Continuous DPP C Starting MAG, Nonautomatic Squirrel Cage/ B Varying, SPTFC C Starting MAG, Nonautomatic Squirrel Cage/ B Varying, SPTFC C Starting MAG, Nonautomatic Squirrel Cage/ B Continuous DPP, C Starting MAG, Nonautomatic	Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Nonauto-DP Maric DP Marying, High Slip Constant DPP C Starting Manual - DP Squirrel Cage/ Constant DPP C Starting Manual - DP Squirrel Cage/ Constant DPP C Starting MAG, Nonauto-DP Maric MT, MTFC Squirrel Cage/ B Continuous DPP, C Starting MAG, Nonauto-DPP MAG, Nonauto-DPP MAG, Nonauto-DPP Constant MAG, Nonauto-DPP Const	Squirrel Cage/ B Continuous TE, TEFC A Starting MAG, Honauto-matic DP Local PB Squirrel Cage/ Varying, High Slip Squirrel Cage/ Short time DPP C Starting Manual - DP Switch Squirrel Cage/ Constant Squirrel Cage/ B Continuous DPP C Starting MAG, Nonauto-matic DP Local PB Squirrel Cage/ B Continuous DPP C Starting MAG, Nonauto-matic DP Local PB Squirrel Cage/ B Varying, SPTFC C Starting MAG, Nonauto-matic MT Local PB Squirrel Cage/ B Varying, SPTFC C Starting MAG, Nonauto-matic MT Local PB Squirrel Cage/ B Continuous DPP, C Starting MAG, Nonauto-matic MT Local PB Squirrel Cage/ B Continuous DPP, C Starting MAG, Nonauto-matic DP Local PB

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

	•	MOTOR	REQUIREMENTS			co	NTROLLER	REQUIREME	NTS		REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Shop Equipment (Continued):											
Bending and Crimping Machine	Squirrel Cage/ Varying	D	Varying. 1 hour	DPP	С	Starting	MAG, LVP	Nonauto- matic	MI	Local PB	
Boring Mill	Squirrel Cage/ Constant	В	Continuous	DPP, TE	С	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	
Buffer	Squirrel Cage/ Constant	В	Varying, ½ hour	SPT, SPTFC, WT,	С	Starting	MAG, LVP	Honauto- matic	WT	Local PB	W-G-656
Buffer (Oll Burner Cleaner)	Squirrel Cage/ Constant	В	Varying, ½ hour	WTFC SPT, SPTFC, WT, WTFC	С	Starting	MAG, LVP	Nonauto- matic	WT	Local PB	00-8-791
Coil Winding Machine	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting	MAG,	Nonauto- matic	DP	Local PB	
Combination Machine	Squirrel Cage/ Constant	В	Intermittent, 1 hour	TE, TEFC	С	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	
	Shop Equipment (Continued): Bending and Crimping Machine Boring Mill Buffer Buffer (Oil Burner Cleaner) Coil Winding Machine	Shop Equipment (Continued): Bending and Crimping Machine Boring Mill Squirrel Cage/Varying Squirrel Cage/Constant Squirrel Cage/Constant Squirrel Cage/Constant Squirrel Cage/Constant Squirrel Cage/Constant Coil Winding Machine Squirrel Cage/Constant Squirrel Cage/Constant Squirrel Cage/Constant Squirrel Cage/Constant	AUXILIARY TYPE/ MOTOR DESIGN Shop Equipment (Continued): Bending and Crimping Machine Boring Mill Squirrel Cage/ Constant Buffer Squirrel Cage/ Constant Buffer (Oil Burner Cleaner) Coil Winding Machine Squirrel Cage/ Constant Buffer Squirrel Cage/ Constant Buffer Squirrel Cage/ B Constant Squirrel Cage/ B Constant Squirrel Cage/ B Constant	AUXILIARY NAME SPEED TYPE/ SPEED DUTY Shop Equipment (Continued): Bending and Crimping Machine Squirrel Cage/ Varying Boring Mill Squirrel Cage/ Constant Buffer Squirrel Cage/ Constant Squirrel Cage/ B Varying, Is hour Squirrel Cage/ Constant Buffer (Oil Burner Constant Squirrel Cage/ B Varying, Is hour Constant Combination Machine Squirrel Cage/ B Continuous Combination Machine Squirrel Cage/ B Continuous Intermittent,	AUXILIARY SPEED A.C. MOTOR DESIGN DUTY ENCL-OSURE Shop Equipment (Continued): Bending and Crimping Squirrel Cage/ Varying DPP 1 hour Boring Mill Squirrel Cage/ Constant DPP, TE Buffer Squirrel Cage/ Constant Squirrel Cage/ Constant Speed B Varying, Speed Speed Speed Speed B Varying, Speed Speed Speed B Varying, Speed Speed Speed Speed Speed Speed B Varying, Speed B Continuous Speed	AUXILIARY NAME TYPE/ MOTOR DESIGN DUTY ENCL- SER- VICE Shop Equipment (Continued): Bending and Crimping Machine Squirrel Cage/ Dayring. Squirrel Cage/ B Continuous DPP. TE Buffer Squirrel Cage/ B Varying. Squirrel Cage/ B Varying. SpT. C SpTFC. WT. WIFC SpTFC WT. WIFC Constant Coil Winding Machine Squirrel Cage/ B Continuous DPP C Constant Squirrel Cage/ B Continuous DPP C Constant TE. C	AUXILIARY NAME TYPE/ SPEED A.C. MOTOR DUTY SERCL SER- OSURE VICE FUNCTION Shop Equipment (Continued): Bending and Crimping Squirrel Cage/ Varying 1 hour Boring Mill Squirrel Cage/ Constant Buffer Squirrel Cage/ Constant Squirrel Cage/ Constant Buffer Squirrel Cage/ Constant Buffer (011 Burner Constant Squirrel Cage/ B Varying, SPT, SPTFC, WI, WIFC SPTFC, WI, WI, WIFC SPTFC, WI, WI, WI, WI, WI, WI, WI, WI, WI, WI	AUXILIARY NAME TYPE/ MOTOR DESIGN DUTY SERCE FUNCTION TYPE/ SPEED A.C. MOTOR DUTY SERCE FUNCTION TYPE/ SERCE FUNCTION TON PROTECTION SERCE FUNCTION TON PROTECTION MAG. LYP Bending and Crimping MAG. LYP Boring Mill Squirrel Cage/ B Continuous DPP. C Starting MAG. LYP Buffer Squirrel Cage/ B Varying. SPT. C STARTING MAG. LYP Buffer (0il Burner Constant Buffer (0il Burner Constant Squirrel Cage/ B Varying. SPT. C STARTING MAG. LYP TE Constant Squirrel Cage/ B Varying. SPT. C Starting MAG. LYP WIFFC WT. WIFFC WT. SPTFC. WT. WTFC WT. WTFC Constant Continuous DPP C Starting MAG. LYP Combination Machine Squirrel Cage/ B Continuous DPP C Starting MAG. LYP Combination Machine Squirrel Cage/ B Intermittent, TE. C Starting MAG. LYP	AUXILIARY NAME TYPE/ MOTOR DESIGN DUTY ENCL- SURE FUNCTION PERFORMANCE Shop Equipment (Continued): Bending and Crimping Machine Squirrel Cage/ Constant Buffer Squirrel Cage/ Constant Squirrel Cage/ B Varying. SPT. C Starting MAG. Nonautomatic Buffer (011 Burner Constant Squirrel Cage/ B Varying. SPT. C Starting MAG. Nonautomatic Buffer (011 Burner Constant Squirrel Cage/ B Varying. SPT. C Starting MAG. Nonautomatic Buffer (011 Burner Squirrel Cage/ Constant Squirrel Cage/ B Varying. SPT. C Starting MAG. Nonautomatic Buffer (011 Burner Squirrel Cage/ B Varying. SPT. C Starting MAG. Nonautomatic Buffer (011 Burner Squirrel Cage/ B Varying. SPT. C Starting MAG. Nonautomatic Buffer (011 Burner Squirrel Cage/ B Continuous DPP C Starting MAG. Nonautomatic Squirrel Cage/ B Continuous DPP C Starting MAG. Nonautomatic Combination Machine Squirrel Cage/ B Intermittent, TE. C Starting MAG. Nonautomatic	AUXILIARY NAME TYPE/ SPEED DUTY ENCL- OSURE FUNCTION POPERATION PROTE- CITION PROTE- FUNCTION PERFOR- ENCL- OSURE Shop Equipment (Continued): Bending and Crimping Machine Squirrel Cage/ B Continuous Buffer Squirrel Cage/ B Varying, Ishour Buffer (011 Burner Constant Squirrel Cage/ B Varying, Ishour Buffer (011 Burner Constant Squirrel Cage/ B Varying, Ishour Buffer (011 Burner Constant Squirrel Cage/ B Varying, Ishour Sprec, WI, WIFC Sprec, Constant WI MIFC Sprec, WI, WIFC Sprec, WI, W	AUXILIARY NAME TYPE/ DESIGN DUTY ENCL- OSURE VICE FUNCTION PROTE- FUNCTION PROTE- OSURE SER- OSURE VICE FUNCTION PROTE- OSURE SER- OSURE SHITCHES Shop Equipment (Continued): Bending and Crimping Machine Squirrel Cage/ D Varying, I hour Boring Mill Squirrel Cage/ B Continuous DPP, C Starting MAG, Nonauto- MT Local PB Local PB Buffer Squirrel Cage/ B Varying, SPT, C Starting MAG, Nonauto- MT Local PB Local PB Buffer (0il Burner Constant Squirrel Cage/ Constant Spife, MT, MTEC SPT, SPT, SPT, SPT, SPT, SPT, SPT, SPT,

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTO	R REQUIREMENT	·\$			CONTROLL	ER REQUIREM	ENTS		
AUXILIARY NAME	. TYPE/ SPEED	A.C. MOTOR DESIGN	≀l .	ENCL- OSURE		-	OPERATION PROTE	- PERFOR-			REMARKS AND APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Shop Equipment (Continued):			,					PARCE	OSURE		
Crank Planer and Shaper	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	
Double Emery Grinder	Squirrel Cage/ Constant	В	Varying, 1 hour	TE, SPTFC, WT,	С	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	
Drill Press	Squirrel Cage/ Constant	В	Varying, 1 hour	WTFC TE	С	Starting	MAG. LVP	Nonauto-	DP	Local PB	
Engine Lathe	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting, Reversing	MAG. LVP	Nonauto- matic	DP	Local PB	MIL-L-23257
Gap Lathe	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting, Reversing	MAG.	Nonauto- matic	DP	Local PB	
Grinder Aerial	Universal/ Varying	В	Varying, 's hour	TE	С	Starting	Manua]	-	WT	Switch	
Grinder, Pedestal	Squirrel Cage/ Constant	В	Continuous	TE	c	Starting	Manua 1	-	WT :	Switch	

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CO	NTROLLER	REQUIREMEN	ITS		REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXILIARIE
Shop Equipment (Continued):											
Hammer	Squirrel Cage/ Constant	D	Continuous	DPP	С	Starting	MAG, LVP	Monauto- matic	DP	Local PB	
Internal Grinder	Squirrel Cage/ Constant	8	Continuous	SPT SPTFC	С	Starting	MAG, LVP	Nonauto- matic	WT		
Jewelers Lathe	Universal/ Varying	-	Varying, 1 hour	DPP	С	Starting	MAG, LVP	Nonauto- matic	DP	Foot Switch	MIL-L-23225
Key Cutting Machine	Squirrel Cage/ Constant	B .	Intermittent, % hour	DPP	С	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	
Machine Forming	Squirrel Cage/ Constant	В	Varying, 1 hour	DPP	С	Starting	MAG, LVP	Nonauto- matic	TE	Local PB	
Metal Cutter, Sheet	Squirrel Cage/ Constant	B .	Continuous	DPP	С	Starting	MAG, LVP	Nonauto- matic	DP		
Nibbling Machine	Squirrel Cage/ Constant	В	Varying, 1 hour	DPP	С	Starting	MAG. LVP	Nonauto- matic	WT		

		MOTOR	REQUIREMENTS			C	ONTROLLE	R REQUIREME	NTS		
AUXIL I ARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL- OSURE	NAVY SER- VICE		OPERA- TION PROTE- CTION		ENCL- OSURE	MASTER SWITCHES	
Shop Equipment (Continued);											
Plamer and Joiner	Squirrel Cage/ Constant	В	Varying, 1 hour	TE	С	Starting .	MAG, LVP	Nonauto- matic	. WŢ		
Portable Drill	As Required/ Varying	•	intermittent, 15 Minutes	DPP	С	Starting	Manual	-	DP	-	
Power Hacksaw	Squirrel Cage/ Constant	8	Intermittent 1 hour	DPP	С	Starting	MAG, LVP	Nonauto- matic	МТ	Local PB	
Precision Lathe	Squirrel Cage/ Varying	В	Continuous	SPT, SPTFC, WT,		Starting, Reversing		Nonauto- matic		Foot Switch	00-G-673
Radial Drill	Squirrel Cage/ Constant	8	Varying, ½ hour	WTFC DPP	С	Starting	MAG, LVP	Nonauto- matic	DP	-	
Routing Machine	Squirrel Cage/ Constant	В	Varying, 1 hour	DPP	С	Starting	Manual	-	DP	-	
Sander Belt and Fish	Squirrel Cage/ Constant			TE	С	Starting	Manua 1	-	WT	-	

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TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

	MUTUK	REQUIREMENTS		CON	TROLLER		REMARKS AND			
TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXILIARIES
·										
Squirrel Cage/ Constant	В	Varying, 1 hour	TEFC	С	Starting	MAG, LVP	Nonauto- matic	WT	-	MIL-S-80095
Squirrel Cage/ Constant	В	Varying, 1 hour	TE	С	Starting	MAG, LVP	Nonauto- matic	WT	-	
Squirrel Cage/ Constant	8	Continuous	TE	C -	Starting	MAG, LVP	Honauto- matic	DP	-	
Squirrel Cage/ Multispeed	8	Varying, 1 hour	DPP	¢	Starting, Speed Selec- tion	MAG, LVP	Nonauto- matic	DP	-	
Squirrel Cage/ Constant	-	Continuous	DPP	С	Starting	Hanua1	-	DP	. •	
Universal/ Varying	-	Continuous	DPP	С	Starting	Manual		DP	-	
	SPEED Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ Multispeed Squirrel Cage/ Universal/	Squirrel Cage/ B Squirrel Cage/ Constant Squirrel Cage/ B Squirrel Cage/ B Squirrel Cage/ B Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ Constant Universal/ -	TYPE/ MOTOR DESIGN DUTY Squirrel Cage/ B Varying, 1 hour Squirrel Cage/ B Varying, 1 hour Squirrel Cage/ B Continuous Squirrel Cage/ B Continuous Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ Continuous Squirrel Cage/ Continuous Squirrel Cage/ Continuous Constant Universal/ - Continuous	TYPE/ SPEED A.C. MOTOR DESIGN DUTY ENCL-OSURE Squirrel Cage/ B Varying, 1 hour Squirrel Cage/ B Varying, 1 hour Squirrel Cage/ B Continuous TE Squirrel Cage/ B Continuous TE Squirrel Cage/ B Continuous DPP Squirrel Cage/ - Continuous DPP	TYPE/ SPEED DESIGN DUTY ENCL- SER- VICE Squirrel Cage/ B Varying, TEFC C Squirrel Cage/ B Varying, TE C Constant B Continuous TE C Squirrel Cage/ B Continuous TE C Squirrel Cage/ B Continuous TE C Squirrel Cage/ B Tarying, DPP C Squirrel Cage/ Constant DPP C Squirrel Cage/ Constant C Continuous DPP C	TYPE/ MOTOR DESIGN DUTY ENCL- SER- VICE FUNCTION Squirrel Cage/ B Varying, TEFC C Starting Squirrel Cage/ B Varying, TE C Starting Constant Squirrel Cage/ B Continuous TE C Starting Squirrel Cage/ B Continuous TE C Starting Squirrel Cage/ B Continuous TE C Starting Squirrel Cage/ B Varying, DPP C Starting. Squirrel Cage/ B Varying, DPP C Starting. Squirrel Cage/ Constant Squirrel Cage/ Constant DPP C Starting Universal/ - Continuous DPP C Starting	TYPE/ MOTOR DESIGN DUTY ENCL- OSURE FUNCTION PROTE- CTION Squirrel Cage/ B Varying, 1 hour Squirrel Cage/ B Varying, 1 hour Squirrel Cage/ B Continuous TE C Starting MAG, LVP Squirrel Cage/ B Continuous TE C Starting MAG, LVP Squirrel Cage/ B Continuous TE C Starting MAG, LVP Squirrel Cage/ B Continuous TE C Starting MAG, LVP Squirrel Cage/ B Varying, 1 hour DPP C Starting, Speed Selecton LVP Squirrel Cage/ Constant DPP C Starting MAG, LVP Squirrel Cage/ Continuous DPP C Starting Manual	TYPE/ MOTOR DESIGN DUTY ENCL- SER- FUNCTION DEFRACTION PROTE- PERFORMANCE Squirrel Cage/ B Varying, 1 hour TEFC C Starting MAG, LVP matic Squirrel Cage/ Constant Te C Starting MAG, LVP matic Squirrel Cage/ B Continuous TE C Starting MAG, LVP matic Squirrel Cage/ B Continuous TE C Starting MAG, Nonauto-matic Squirrel Cage/ B Continuous TE C Starting MAG, Nonauto-matic Squirrel Cage/ B Continuous DPP C Starting MAG, Nonauto-matic Squirrel Cage/ Constant DPP C Starting MAG, Nonauto-matic Squirrel Cage/ Continuous DPP C Starting MAG, Nonauto-matic	TYPE/ MOTOR DUTY ENCL- OSURE FUNCTION PERFORMANCE ENCL- OSURE Squirrel Cage/ B Varying, 1 hour TEFC C Starting MAG, Nonauto- MT matic Squirrel Cage/ Constant Squirrel Cage/ B Continuous TE C Starting MAG, Nonauto- MT matic Squirrel Cage/ B Continuous TE C Starting MAG, Nonauto- MT matic Squirrel Cage/ B Continuous TE C Starting MAG, Nonauto- MT matic Squirrel Cage/ B Continuous TE C Starting MAG, Nonauto- MT matic Squirrel Cage/ B Continuous TE C Starting MAG, Nonauto- MT matic Squirrel Cage/ B Varying, 1 hour Speed Salec- LVP matic Squirrel Cage/ Constant Squirrel Cage/ Continuous DPP C Starting Manual - DP Manual - DP Constant Universal/ - Continuous DPP C Starting Manual - DP	TYPE/ SPEED A. C. MOTOR DESIGN DUTY SERVICE FUNCTION Squirrel Cage/ Constant Squirrel Cage/ B Continuous TE C Starting MAG, Nonauto-MT Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ B Continuous TE C Starting MAG, Nonauto-MT Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ Constant DP C Starting MAG, Nonauto-MT Squirrel Cage/ Constant Squirrel Cage/ Constant DP C Starting MAG, Nonauto-MT Squirrel Cage/ Constant Squirrel Cage/ Continuous DPP C Starting MAG, Nonauto- Typ Mag,

		MOTOR	REQUIREMENT	S		CC	ONTROLLER	REQUIREMEN			
AUX IL I ARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL- OSURE	NAVY SER- VICE	j	OPERA- TION PROTE- CTION	ı	ENCL- OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATION FOR AUXILIARIE
Shop Equipment (Continued):											
Shoe Finishing Machine	Squirrel Cage/ Constant	В	Continuous	TE	С	Starting	Manua)	-	DP	-	
Shoe Repair Machine	Capacitor Start/ Multispeed	В	Continuous	DPP	С	Starting, Speed Selection	Manua 1	-	DP	-	
Tool Post Grinder (Portable)	Squirrel Cage/ Constant	8	Continuous	TEFC	С	Starting	Manua 1		DP	-	00-G-673
Universal Cutter and Tool Grinder	Squirrel Cage/ Constant	В	Continuous	SPT, SPTFC	С	Starting	MAG. LVP	Nonauto- matic	DP	-	
Universal Milling Machine	Squirrel Cage/ Constant	В	Continuous	DPP	С	Starting	MAG. LVP	Nonauto- matic	DP	-	
Valve Refacer	Universal/ Varying	-	Continuous	DPP	С	Starting	MAG, LVP	Nonauto- matic	DP	-	

TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			со	NTROLLER	REQUIREMEN	ITS		REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL - OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL-	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXLIARIES
Shop Equipment (Continued):			•						•		
Woodworking Lathe	Squirrel Cage/ Multispeed	В	Continuous	DPP	С	Starting. Speed Selection	MAG, LVP	Nonauto- matic	WT	Local PB	MIL-M-80190
Woodworking Machine	Squirrel Cage/ Constant	8	Varying, 1 hour	SPT, SPTFC, WT,	С	Starting	MAG, LVP	Nonauto- matic	WT	Local PB	MIL-M-80190
Sliding Padeye	Squirrel Cage/ Constant	D	Intermittent	WTFC WT	A	Starting, Reversing	MAG, LVP	Nonauto- matic	DP	Remote PB (WT)	
Stairway, Electric	Squirrel Cage/ Constant	В	Continuous	DPP	۸	Starting, Reversing	MAG, LVP	Nonauto- matic	DP	Remote PB	Limit Switch a Interlocks as Reqd
Steering Gear:			:								
Fill and Drain Pumps	Squirrel Cage/ Constant	8	Continuous	DPP. TEFC	٨	Starting	MAG, LVP	Nonauto- matic	DP	Local PB	
Main Pumps	Squirrel Cage/ Constant	С	Varying, 날 hour	DPP	۸	Starting	MAG, LVR	Nonauto- matic	DP	Remote Mas- ter and Emergency run PB	Selector Switc as Reqd

	MOTOR	REQUIREMENTS			co	ONTROLLER	REQUIREMEN		DEMANUE AND	
TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL - OSURE	MASTER SWITCHES	REMARKS AND APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Squirrel Cage/ Constant	В	Continuous	DPP	٨	Starting	MAG, LVP or LVR	Honauto- matic	DP	Remote PB	Selector Switc as Reqd
As Required/ Adjustable, Varying	D.	Varying, 1 hour	WT	۸	Starting, Reversing, Speed	MAG. LVP	Nonauto- matic	WT	Remote Drum	
Squirrel Cage/ Constant	В	Continuous	TE, TEFC	A	Selection Starting	Manua 1	-	DP	-	
Squirrel Cage/ Constant	D .	Continuous	DPP	A	Starting, Reversing	MAG, LVP	Nonauto- matic	DP	Local PB	
Squirrel Cage/ Varying	С	Continuous, Short time, 15 Minutes	TE, TEFC	A	Starting, Reversing	MAG, LVP	Nonauto- matic	WT	Remote PB	Limit Switch ar Interlocks as Reqd
Squirrel Cage/ Constant	В	Continuous	TE, WT	A	Starting, Reversing	MAG, LVP	Automatic and Non- automatic	DP, TE	Local, Remote PB	V-17501
					·					
	SPEED Squirrel Cage/ Constant As Required/ Adjustable, Varying Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ Varying Squirrel Cage/ Varying	Squirrel Cage/ B As Required/ Adjustable, Varying Squirrel Cage/ Constant Squirrel Cage/ B Squirrel Cage/ B	Squirrel Cage/ B Continuous As Required/ Design Dury As Required/ Adjustable, Varying Squirrel Cage/ B Continuous Squirrel Cage/ Constant Squirrel Cage/ Continuous Squirrel Cage/ Continuous Squirrel Cage/ Continuous Squirrel Cage/ B Continuous Squirrel Cage/ B Continuous Squirrel Cage/ B Continuous	TYPE/ SPEED A.C. MOTOR DESIGN DUTY ENCL-OSURE Squirrel Cage/ B Continuous DPP As Required/ Adjustable, Varying Squirrel Cage/ Constant B Continuous TE, TEFC Squirrel Cage/ Constant C C Continuous DPP Squirrel Cage/ Constant C C Continuous TE, TEFC Squirrel Cage/ Constant C C Continuous TE, TEFC Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ B Continuous TE, TEFC	TYPE/ SPEED DESIGN DUTY ENCL- SER- SPEED DESIGN DUTY DUTY Squirrel Cage/ B Continuous DPP A As Required/ Adjustable, Varying Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ Constant Squirrel Cage/ Constant Squirrel Cage/ Continuous DPP A Squirrel Cage/ Continuous DPP A Squirrel Cage/ Continuous TE, TEFC Squirrel Cage/ Continuous TE, TEFC Squirrel Cage/ B Continuous TE, A Squirrel Cage/ B Continuous TE, A	TYPE/ MOTOR DESIGN DUTY Squirrel Cage/ Constant As Required/ Adjustable, Varying Squirrel Cage/ Constant Squirrel Cage/ Continuous TE, Constant Squirrel Cage/ Continuous DPP A Starting Speed Selection Starting Squirrel Cage/ Constant Squirrel Cage/ Continuous DPP A Starting, Reversing Squirrel Cage/ Constant Squirrel Cage/ Continuous DPP A Starting, Reversing Squirrel Cage/ Continuous Short time, Short time, 15 Minutes Squirrel Cage/ B Continuous TE, A Starting, Reversing	TYPE/ SPEED A.C. MOTOR DESIGN DUTY ENCL- OSURE FUNCTION OPERATION PROTE- CTION Squirrel Cage/ Constant DPP A Starting MAG. LVP or LVR As Required/ Adjustable, Varying I hour Squirrel Cage/ Constant Squirrel Cage/ Constant Continuous TE, TEFC Squirrel Cage/ Constant DPP A Starting MAG. LVP Squirrel Cage/ Continuous DPP A Starting Manual Squirrel Cage/ Continuous TE, TEFC Squirrel Cage/ Continuous TE, TEFC Squirrel Cage/ Continuous TE, TEFC Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ B Continuous TE, TEFC Squirrel Cage/ B Continuous TE, A Starting, Reversing LVP Squirrel Cage/ B Continuous TE, A Starting, Reversing LVP Squirrel Cage/ B Continuous TE, A Starting, MAG.	TYPE/ MOTOR DESIGN DUTY ENCL- SER- FUNCTION PROTE- PERFORMANCE Squirrel Cage/ Constant As Required/ Adjustable, Varying I hour Squirrel Cage/ Constant TE, Constant Squirrel Cage/ Constant Constant Continuous DPP A Starting MAG, LVP or LVR A Starting MAG, LVP or LVR Speed Selection Starting Manual Squirrel Cage/ Continuous TE, TEFC Squirrel Cage/ Constant Squirrel Cage/ Continuous DPP A Starting, MAG, Nonautomatic Squirrel Cage/ C Continuous TE, TEFC Squirrel Cage/ Continuous TE, TEFC Squirrel Cage/ Continuous TE, TEFC Squirrel Cage/ C Continuous TE, A Starting, MAG, Automatic and Non-	TYPE/ DESIGN DUTY ENCL- SER- FUNCTION PROTE- PERFOR- ENCL- OSURE VICE FUNCTION PROTE- PERFOR- ENCL- OSURE PROTE- CTION PROTE- PERFOR- ENCL- OSURE PROTE- CTION PROTE- PERFOR- ENCL- OSURE PROTE- PERFOR- PERFOR- ENCL- OSURE PROTE- PERFOR- PERFOR- ENCL- OSURE PROTE- PERFOR- PERFO	Squirrel Cage/ Constant Squirrel Cage/ Constant As Required/ Adjustable, Varying Squirrel Cage/ Constant Squirrel Cage/ Constant DP A Starting MAG, Nonauto- LVR matic LVP or LVR matic Selection Scale Selection Starting Manual - DP - Squirrel Cage/ Constant Squirrel Cage/ Constant DP A Starting, Reversing MAG, Nonauto- matic LVP matic Selection Starting Manual - DP - Squirrel Cage/ Constant Squirrel Cage/ Continuous DPP A Starting, MAG, Reversing LVP matic Squirrel Cage/ Continuous DPP A Starting, MAG, Nonauto- matic NT Remote PB Reversing MAG, Reversing LVP matic Squirrel Cage/ Continuous, TE, A Starting, MAG, Monauto- matic NT Remote PB Reversing MAG, Reversing LVP MAG, Nonauto- matic NT Remote PB Reversing MAG, Reversing LVP MAG, Automatic NT Remote PB Reversing MAG, Reversing LVP MAG, Automatic DP, Local, Reversing LVP and Non- TE Remote PB R

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TABLE 1- A.C. MOTOR AND CONTROLLER APPLICATION REQUIREMENTS (CONT.)

		MOTOR	REQUIREMENTS			CO	NTROLLER	REQUIREMEN	TS		REMARKS AND
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN	DUTY	ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION	PERFOR- MANCE	ENCL - OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXILIARIES
inches:	·										
Bathythermograph	Squirrel Cage/ Multispeed	8	Short time, & hour	WT	٨	Starting, Speed Selection	MAG, LVP	Nonauto- matic	WT	R emote Drum	MIL-W-19882
Constant Tension	Squirrel Cage/ Constant Speed	D	Continuous	WT	٨	Starting, Reversing	MAG, LVP	Nonauto- matic	DP	Remote PB (WT)	
Drum (Boat Daviț)	Squirrel Cage/ Constant	D	Short Time, 눌 hour	SPT, WT	٨	Starting, Reversing	MAG. LVR	Nonauto- matic	WT	Remote Drum	Drum Switch is Spring Return "OFF"
Drum (Electric)	Squirrel Cage/ Multispeed	D	Varying, ½ hour	SPT, WT	A	Starting, Reversing, Speed	MAG, LVR	Nonauto- matic	WT	Remote Drum	
Drum (Hydraulic)	Squirrel Cage/ Constant	В	Continuous	WT	A	Selection Starting	MAG. LVP	Nonauto- matic	DP	Local PB	MIL-W-17265
Drum (Magnetic Clutch)	Squirrel Cage/ Varying	8	Varying, الم	SPT, WT	A	Starting	MAG. LVP	Nonauto- matic	М	Remote PB	
Gypsy	Squirrel Cage/ Multispeed		Full Load, & hour, other, Continuous	WT	A	Starting, Reversing, Speed	MAG, LVR	Nonauto- matic	DP	Remote Drum (WT)	MIL-W-15802
Main Deck Ramp	Squirrel Cage/ Constant	В	Short Time	DPP	A	Selection Starting, Reversing	MAG. LVP	Nonauto- matic	DP	Remote PB	Limit Switch a Interlocks as Reqd

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		MOTOR	REQUIREMENTS			(ONTROLLE	R REQUIREM		REMARKS AND	
AUXILIARY NAME	TYPE/ SPEED	A.C. MOTOR DESIGN		ENCL- OSURE	NAVY SER- VICE	FUNCTION	OPERA- TION PROTE- CTION		ENCL- OSURE	MASTER SWITCHES	APPLICABLE SPECIFICATIONS FOR AUXILIARIES
Winches (Continued):											
Vehicle/Amphibian receiver	Squirrel Cage/ Constant	8	Continuous	DPP	٨	Starting	MAG, LVP	Nonauto- matic	DP	Remote PE	
Windlass Anchor:											
Electric	Squirrel Cage/ Constant	В	Varying	DPP	A	Starting	MAG. LVP	Nonauto- matic	DP	Remote PB (WT)	
Replenishment Pump	Squirrel Cage/ Constant	8	Continuous	DPP	A	Starting	MAG, LVP	Nonauto- matic	DP	Remote PB	
Electrohydraulic	Squirrel Cage/ Constant	В	Varying, 1 hour	DPP	A	Starting	MAG, LVP	Nonauto- matic	DP	Remote PB	
Window Wipers	Permanent Magnet/ Adjustable		Continuous	Open or WT	С	Starting, Speed Selection	Manual OL	-	DP	-	MIL-W-3459B
		- 1									