SECTION
ARIABLE FREQUE CY DRI E UNITS

PART GENERAL

RELATED ORD

A Specified Elsewhere·
B Drawings and general provisions of Contract including ut not li ited to General Special and Supple entary Conditions and other Division Specification Sections apply to the work of this Section
Division applica le sections
Division Section and applica le sections

In accordance with Division One

A Shop Drawing· All otor starters and enclosures
B Product Data· All co ponents

arranty· Provide year coverage on parts

PART PRODUCTS

Accepta le Manufacturers·

A Magnetek
B ABB
C Toshi a
D DanFoss
E Sie ens
F Cutler Ha er
G Square D
H Trane DanFoss
I Engineer and Owner approved equal· refer to Section

MATERIALS

A Adjusta le frequency drive unit shall e co plete UL listed asse ly as specified herein and shall e rated for continuous duty at a i u service factor and full load horsepower as indicated on the drawings All adjusta le frequency drives supplied shall e of the sa e anufacturer and odel
B Unit shall operate in condition of to _9 non condensing hu idity and to °C a ient te peratures
C The adjusta le frequency drive shall e housed in a NEMA enclosure finished with the anufacturer s standard paint syste All power and contr electronics shall e of odular construction for ease of aintenance and replace ent
D Power input to the unit shall e as AC phase Unit shall e provided with integral high interrupting ACC ini circuit reaker disconnects sized in accordance with line current input to the drive Door interlock shall disconnect the unit fro line

power upon opening Line reactors shall e provided to ini ize line interference voltage transients and short circuit currents Efficiency of the unit shall e _9 ini u at rated load and speed Unit power factor shall not e less than _9 lagging throughout the speed range

E The inverter unit shall e provided with anual y pass control allowing the otor to continue to operate at no inal speed when F drive co ponents are re oved for service The inverter shall utilize the two step AC to DC DC to AC pulse width odulated type with capacitor ank filtered output or voltage vector control C technology The RFI EMI filters shall e factory installed Class A devices per FCC Regulations Part Su part J Surge arrestors with capa ilities to reduce RFI are not accepta le Power electronics co ponents shall not e paralleled and shall e rated to withstand a i u short circuit conditions without da age Unit shall e capa le of catching a otor spinning in the forward or reverse direction upon starting A separate grounding connection for the inverter output shall e provided Unit output shall include full voltage non reversing NEMA rated output otor starter to provide a positive disconnection eans inverter power disconnect and NEMA rated full voltage non reversing ypass starter echanically and electrically interlocked to allow connection to the line voltage source and its safety ground in event of invertor f

Fault Output Contact Dry For C

Provide the following readily accessi le user adjust ents·

Mini u frequency

Ma i u frequency

Speed default upon loss of speed reference signal

Acceleration ti e

Deceleration ti e

Overload current

Speed input reference signal ias

Speed input reference signal gain

Mini u speed dwell ti e to seconds

Motor noise reduction via carrier frequency or