

CAST IRON INLINE REDUCERS

AVAILABLE SELECTIONS



Single Reduction

Style BA



Ratings & Dimensions:
Contact Factory

Style BAMCQ



Ratings & Dimensions:
Contact Factory

Style TX



Ratings: Pages 48-51
Dimensions: Pages 56-57

Style TXQ



Ratings: Pages 48-51
Dimensions: Pages 56-57

Double Reduction

Style CSR



Ratings: Pages 152-153
Dimensions: Page 154

Style CMR



Ratings: Pages 152-153
Dimensions: Page 154

Style CSF



Ratings: Pages 152-153
Dimensions: Page 155

Style CMF



Ratings: Pages 152-153
Dimensions: Page 155

Triple Reduction

Style CSR



Ratings: Pages 152-153
Dimensions: Page 156

Style CMR



Ratings: Pages 152-153
Dimensions: Page 156

Style CSF



Ratings: Pages 152-153
Dimensions: Page 157

Style CMF



Ratings: Pages 152-153
Dimensions: Page 157

Quad Reduction

Style CSR



Ratings & Dimensions:
Contact Factory

Style CMR



Ratings & Dimensions:
Contact Factory

Style CSF



Ratings & Dimensions:
Contact Factory

Style CMF



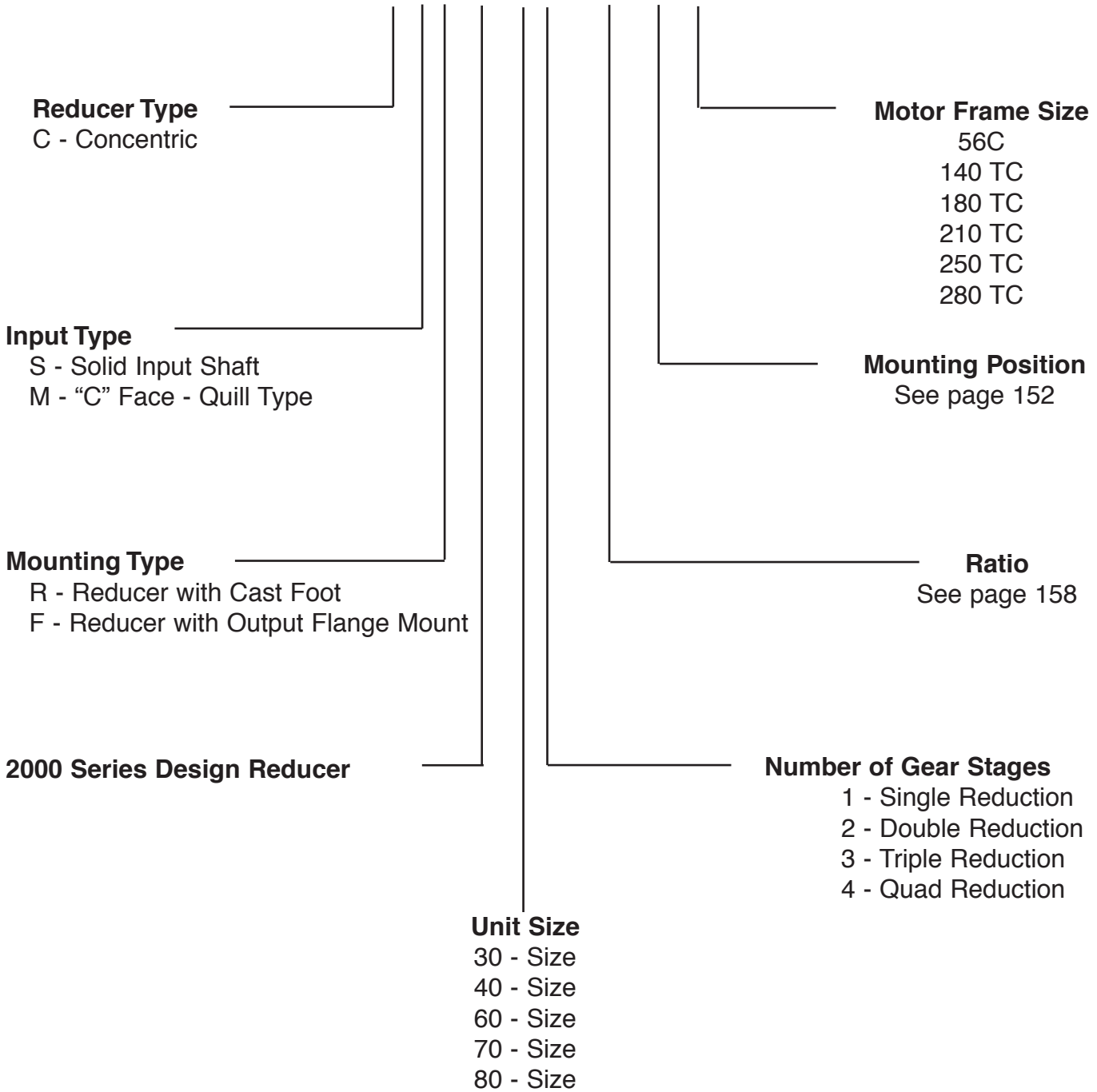
Ratings & Dimensions:
Contact Factory



CAST IRON INLINE REDUCERS

MODEL NUMBER SYSTEM

C M R 2 0 4 2 - 6.1 - A - 56C





Class 1 Service 1.0 (s.f.)

Output		INPUT – H.P.															
Speed	Ratio	1/4	1/2	3/4	1	1-1/2	2	3	5	7-1/2	10	15	20	25	30	40	50
778	2.25	2032	2032	2032	2032	2032	2032	2042	2062	2062	2062	2062	2072	2072	2082	2082	2082
635	2.76	2042	2042	2042	2042	2042	2042	22042	2062	2062	2062	2062	2072	2072	2082	2082	2082
519	3.38	2032	2032	2032	2032	2032	2032	2042	2062	2062	2062	2072	2072	2072	2082	2082	
424	4.13	2042	2042	2042	2042	2042	2042	2042	2062	2062	2062	2072	2082	2082	2082		
346	5.06	2032	2032	2032	2032	2032	2032	2042	2062	2062	2062	2072	2072	2082	2082	2082	
282	6.20	2032	2032	2032	2032	2032	2042	2042	2062	2062	2062	2072	2072	2082	2082	2082	
231	7.56	2032	2032	2032	2032	2032	2042	2042	2062	2062	2072	2072	2082	2082	2082		
188	9.30	2032	2032	2032	2032	2032	2042	2042	2062	2072	2072	2072	2082	2082	2082		
125	14.0	2042	2042	2042	2042	2042	2042	2062	2062	2072	2082	2082	2082				
102	17.1	2032	2032	2042	2042	2062	2062	2072	2072	2072	2072	2082					
84	20.9	2032	2032	2042	2042	2042	2062	2062	2072	2072	2082						
68	25.6	2032	2032	2042	2042	2042	2062	2062	2072	2082	2082						
56	31.4	2042	2042	2042	2042	2062	2062	2072	2072	2082							
46	38.4	2032	2042	2042	2042	2062	2062	2072	2082								
37	47.1	2032	2042	2042	2062	2062	2072	2072	2082								
30	57.7	2042	2042	2042	2062	2072	2072	2083									
25	70.6	2032	2043	2063	2073	2073	2073	2083									
20	86.5	2043	2063	2063	2073	2073	2073										
16.5	105.9	2043	2063	2073	2073	2073	2083										
13.5	129.7	2063	2073	2073	2073	2083	2083										

Drive Selection

In the rating charts inline reducers are grouped by reducer size starting with the lowest ratio in each size group. In the output speed column locate the speed that is nearest the required RPM. Locate the size that meets the motor HP requirement (input HP) if the unit is C face or select the unit which has the appropriate torque (output tq) for the application. The output torque listed is for 1.0 Service Factor. Output Speed and input horsepower are calculated at 1750 RPM input. The service factor and overhung load ratings of the reducer should be checked to insure that they are equal to or greater than the ratings required for the application. If the ratings on the reducer selected are less than required, the next larger reducer should be considered. After the unit size has been selected, complete the model number by adding the mounting type, the ratio, the mounting position, and the input C face if required.

Service Factor

Ratings listed are for 1.0 Service Factor. To determine service factor needed see page 92.

$$\text{Service Factor} = \frac{\text{Reducer Rating}}{\text{Motor or Input Rating}}$$

Mounting Type
See page 149

Mounting Position
See page 158

“C” Face Required

See Motor Compatibility Chart on page 159 or Dimension Pages

Overhung Loads

The overhung load values listed in the selection tables are for the most unfavorable conditions applied at the mid point of the output shaft extension. If higher than listed values are required, contact factory with application details.

To determine the O.H.L. on a given reducer the following formula can be used.

$$\text{OHL} = \frac{\text{HP} \times 126,000 \times \text{K}}{\text{RPM} \times \text{D}}$$

Where

- OHL = Overhung Load (Lbs)
- HP = Horsepower
- K = Load Factor
 - 1.00 Chain Drive
 - 1.25 Gear Drive
 - 1.25 Gearbelt Drive
 - 1.50 V-Belt Drive
 - 2.50 Flat Belt Drive

RPM = Maximum Speed

D = Pitch Diameter of Gear, Pulley, Sheave, Sprocket, etc.

WARNING : Overhung loads subject shaft bearings and shafts to stress which may cause premature bearing failure and or shaft breakage from bending fatigue, if not sized properly.