

# MaxMotion

## PERFORMANCE DATA SHEET

Meets or exceeds MEPS (Minimum Efficiency Performance Standards), as described by the US Department of Energy in docket 10CFR431 and Natural Resources Canada's Amendment 14

Catalogue #: **MQRP-104JH**

| HP | kW   | Voltage   | S.F. @ 60Hz | Efficiency | Power Factor | Frame | Design | L.R. Amps |
|----|------|-----------|-------------|------------|--------------|-------|--------|-----------|
| 1  | 0,75 | 230 / 460 | 1,15        | 86,5%      | 0,770        | 56J   | B      | 15        |

| 60 Hz |      |     |      |     |     |     |      |          |
|-------|------|-----|------|-----|-----|-----|------|----------|
| FLA   |      |     |      |     |     |     | Code | F.L. RPM |
| 208   | 230  | 416 | 460  | 480 | 575 | 600 |      |          |
| /     | 2,82 | /   | 1,41 | /   | /   | /   | L    | 1752     |

| 50 Hz |        |     |     |             |            |              |      |          |
|-------|--------|-----|-----|-------------|------------|--------------|------|----------|
| HP    | kW     | FLA |     | S.F. @ 50Hz | Efficiency | Power Factor | Code | F.L. RPM |
|       |        | 190 | 380 |             |            |              |      |          |
| 0,75  | 0,5595 | 3,0 | 1,5 | 1,15        | 82,5%      | 0,64         | L    | 1440     |

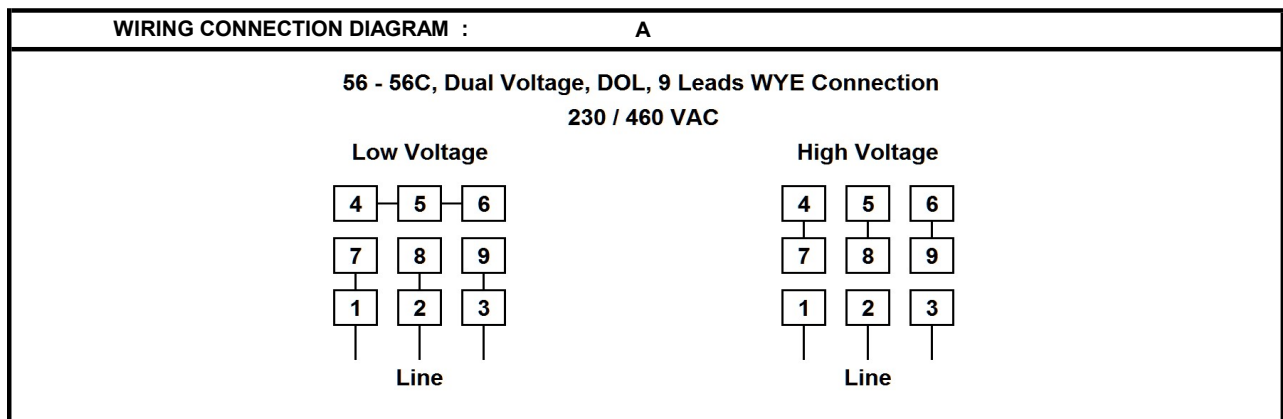
| Wgt. Lbs | PH | Duty  | Insul. Class | Amb. | Elevation       | Temp. Rise° C |
|----------|----|-------|--------------|------|-----------------|---------------|
| 27       | 3  | Cont. | F            | 40°C | 1000M (3300 Ft) | 43            |

| % Efficiency |       | % Power Factor |      | Torque           |     | Winding Resist. Ω | Safe Cold Start (Secs) |
|--------------|-------|----------------|------|------------------|-----|-------------------|------------------------|
| Full Load:   | 86,5% | Full Load:     | 0,77 | Full Load Ft/Lbs | 3,0 |                   |                        |
| 3/4 Load:    | 87,3% | 3/4 Load:      | 0,67 | Locked Rotor %   | 387 |                   |                        |
| 1/2 Load:    | 83,9% | 1/2 Load:      | 0,53 | Break Down %     | 452 | 4,37 / 17,4       | 12                     |

| Rotor Inertia Wk2 Lb-Ft2 | Max Load Inertia Wk2 Lb-Ft2 | Shaft Material | Frame Material | DE Bracket Type | ODE Bracket Type | Enclosure | NEMA Rating | Lead Wire Size |
|--------------------------|-----------------------------|----------------|----------------|-----------------|------------------|-----------|-------------|----------------|
| /                        | /                           | 304SS          | Rolled Steel   | Aluminium Alloy |                  | TEFC      | IP55        | 16AWG          |

| Ball Bearings |      | Grease          | Mount Type | Orientation | Paint | Sound Pressure @ 3FT | Sound Power |
|---------------|------|-----------------|------------|-------------|-------|----------------------|-------------|
| DE            | ODE  |                 |            |             |       |                      |             |
| 6205          | 6203 | Sealed Bearings | Rigid      | Horizontal  | Black | 57                   | /           |

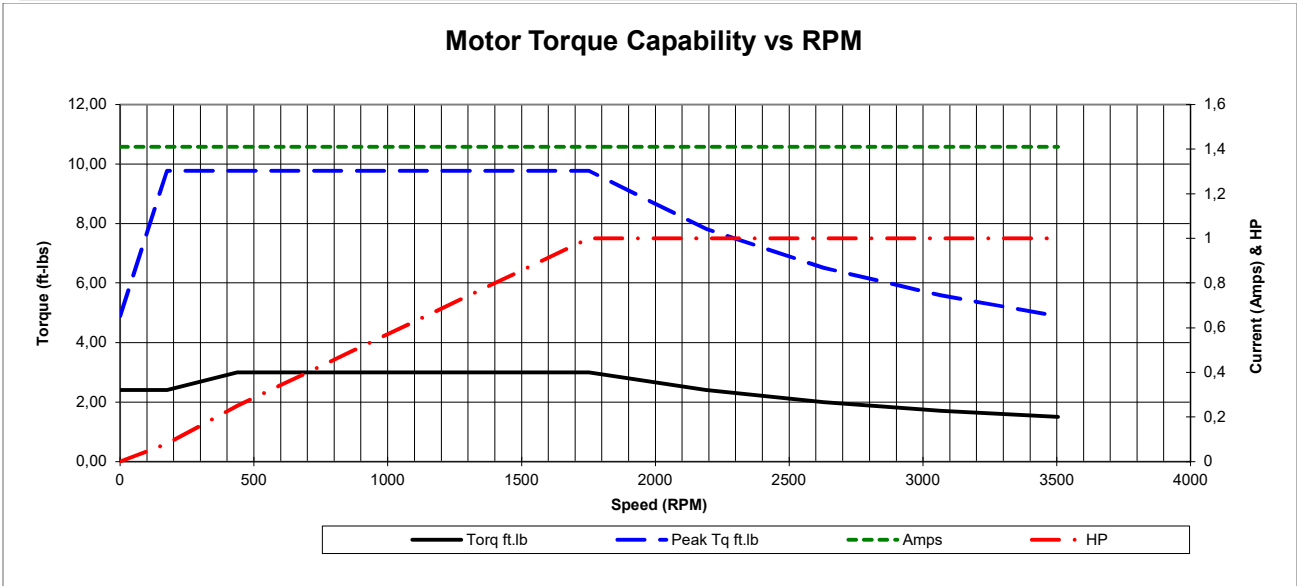
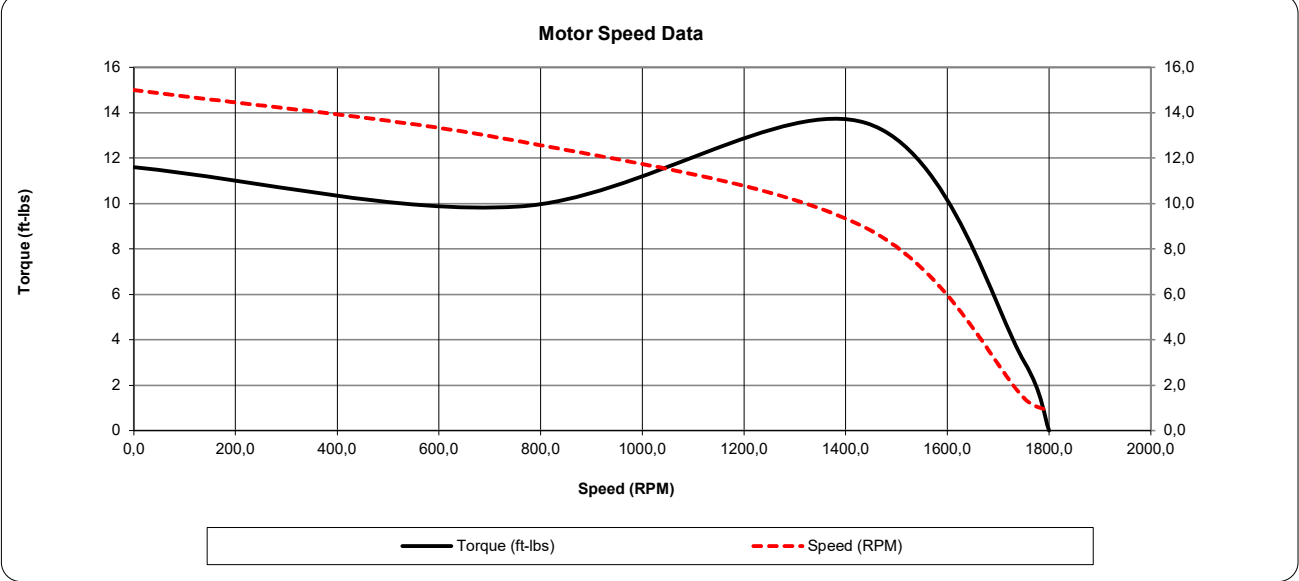
| Inverter Duty.<br>Motor meets MG1 parts 31.4.4.2 | Constant Torque Range | Variable Torque Range | Constant HP RPM |
|--------------------------------------------------|-----------------------|-----------------------|-----------------|
|                                                  | 10:1                  | 20:1                  | 2700            |



Date: 2024-05-01  
Customer:  
Contact:  
Submittee: J.C. Lavallée

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------|-----------|------------|-----------|--------------------------------------|-------|----------------|------------------|---------------|
| HP                                                                                                                                                                           | VAC          | RPM     | Enclosure | Frame      | Frequency | Design                               | Poles | LR Code Letter | Insulation Class | Temp. Rise °C |
| 1                                                                                                                                                                            | 460          | 1752    | TEFC      | 56J        | 60        | B                                    | 4     | L              | F                | 43            |
|                                                                                                                                                                              | 0Hz          | 6Hz     | 15Hz      | 30Hz       | 45Hz      | 60Hz                                 | 75Hz  | 90Hz           | 105Hz            | 120Hz         |
| Amps                                                                                                                                                                         | 1,41         | 1,41    | 1,41      | 1,41       | 1,41      | 1,41                                 | 1,41  | 1,41           | 1,41             | 1,41          |
| RPM                                                                                                                                                                          | 0            | 175,2   | 438       | 876        | 1314      | 1752                                 | 2190  | 2628           | 3066             | 3504          |
| Torq ft.lb                                                                                                                                                                   | 2,40         | 2,40    | 3,00      | 3,00       | 3,00      | 3,00                                 | 2,40  | 2,00           | 1,71             | 1,50          |
| Peak Tq ft.lb                                                                                                                                                                | 4,89         | 9,77    | 9,77      | 9,77       | 9,77      | 9,77                                 | 7,82  | 6,52           | 5,58             | 4,89          |
| HP                                                                                                                                                                           | 0            | 0,1     | 0,3       | 0,5        | 0,8       | 1,0                                  | 1,0   | 1,0            | 1,0              | 1,0           |
|                                                                                                                                                                              | Locked Rotor | Pull-Up | Breakdown | Rated Load | Idle      | Duty                                 | S. F. | Ambient        | Elevation        | dBA @ 1M      |
| Speed (RPM)                                                                                                                                                                  | 0,0          | 756     | 1440      | 1752       | 1800      | Continuous                           | 1,15  | 40°C           | 3,300 ft         | 57            |
| Current (Amps)                                                                                                                                                               | 15,0         | 12,8    | 8,9       | 1,4        | 0,9       | VFD Rating: Meets MG1 parts 31.4.4.2 |       |                |                  |               |
| Torque (ft-lbs)                                                                                                                                                              | 11,6         | 9,9     | 13,5      | 3,0        | 0,0       | C.T.                                 | 10:1  | V.T.           | 20:1             |               |





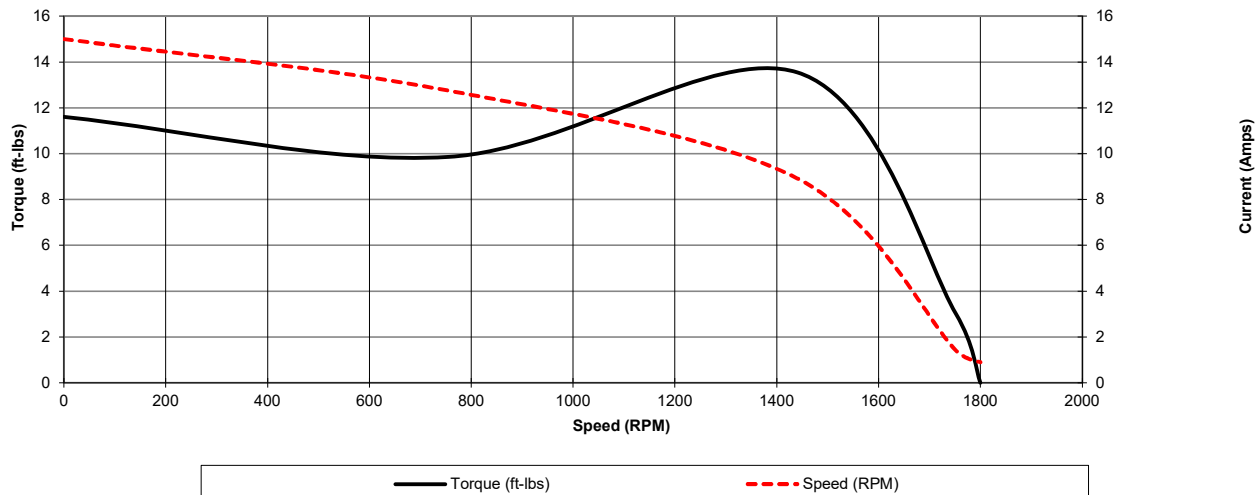
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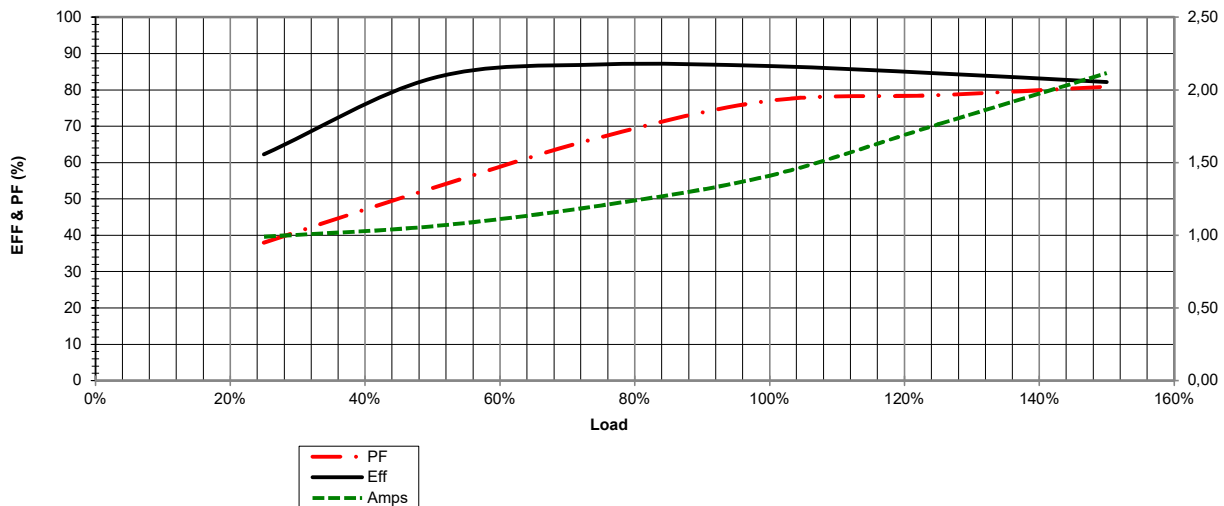
| HP              | VAC     | RPM       | Enclosure  | Frame | Frequency | Design                               | Poles   | LR Code Letter | Insulation Class | Temp. Rise °C |
|-----------------|---------|-----------|------------|-------|-----------|--------------------------------------|---------|----------------|------------------|---------------|
| 1               | 460     | 1752      | TEFC       | 56J   | 60        | B                                    | 4       | L              | F                | 43            |
| Load %          | 0%      | 25%       | 50%        | 75%   | 100%      | 125%                                 | 150%    |                |                  |               |
| Amps            | 0,90    | 0,99      | 1,06       | 1,21  | 1,41      | 1,76                                 | 2,12    |                |                  |               |
| Torq ft/lbs     | 0       | 0,73      | 1,48       | 2,23  | 3,00      | 3,77                                 | 4,56    |                |                  |               |
| RPM             | 0       | 1788      | 1776       | 1764  | 1752      | 1740                                 | 1728    |                |                  |               |
| Eff             | 0       | 62,22     | 83,18      | 86,98 | 86,50     | 84,55                                | 82,14   |                |                  |               |
| PF              | 0       | 38,0      | 53         | 67    | 77,0      | 78,5                                 | 80,9    |                |                  |               |
| Locked Rotor    | Pull-Up | Breakdown | Rated Load | Idle  | Duty      | S. F.                                | Ambient | Elevation      | dBA @ 1M         |               |
| Speed (RPM)     | 0       | 756       | 1440       | 1752  | 1800      | Continuous                           | 1,15    | 40°C           | 3,300 ft         | 57            |
| Current (Amps)  | 15      | 12,8      | 8,9        | 1,41  | 0,898     | VFD Rating: Meets MG1 parts 31.4.4.2 |         |                |                  |               |
| Torque (ft-lbs) | 11,60   | 9,86      | 13,55      | 3,00  | 0,0       | C.T.                                 | 10:1    | V.T.           | 20:1             |               |

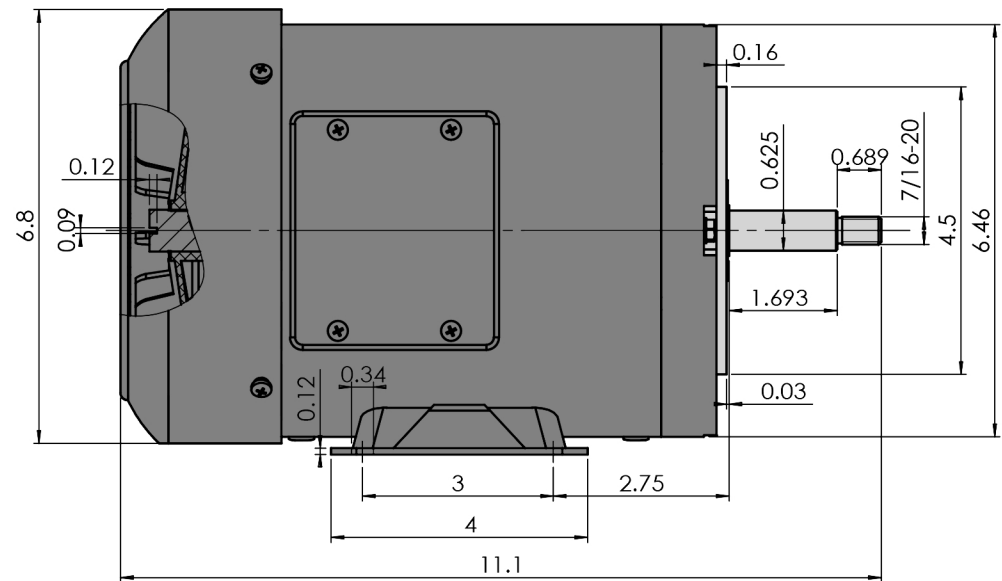
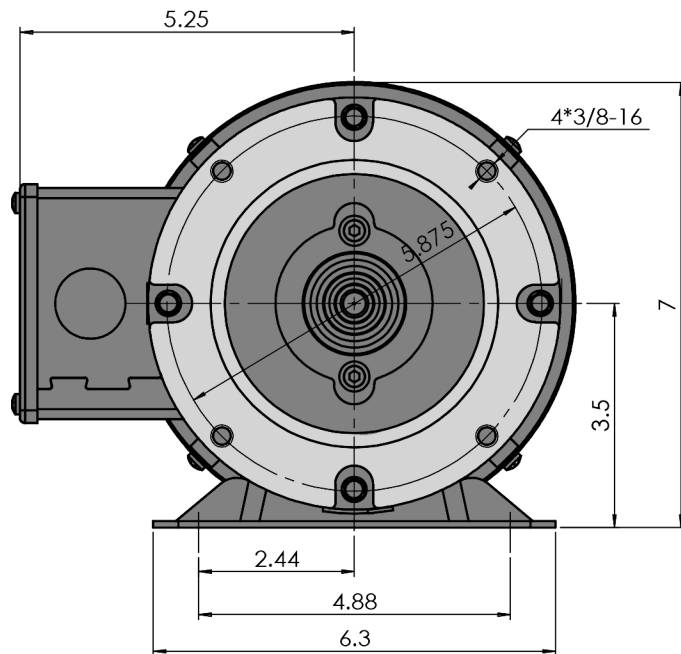
Motor Speed Data



443T - 460V Dual Voltage SCL 51 leads WYE Connection

Motor Load Data





|                                                                                                                     |                       |    |      |       |           |                 |
|---------------------------------------------------------------------------------------------------------------------|-----------------------|----|------|-------|-----------|-----------------|
| Version:1HUA                                                                                                        | Revised: January 2023 | HP | RPM  | FRAME | ENCLOSURE | MQRP/MPRP-104JH |
| Customer is responsible in determining that MaxMotion product will fit/perform suitably in the intended application |                       | 1  | 1800 | 56J   | TEFC      |                 |

## JET PUMP 56J 3 PHASE AC MOTORS

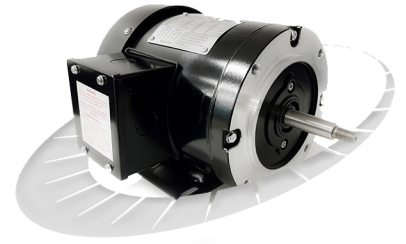
HEAVY GAUGE ROLLED STEEL CONSTRUCTION

TEFC TOTALLY ENCLOSED FAN COOLED



### Applications:

Jet pump motors are designed for industrial and commercial applications in mind. Motors are designed with removable feet, allowing easy replacement of footless flange mounted motors or rigid base 56J TEFC motors mounting. Motor construction is suitable for processing, water treatment, and circulatory pumps. Typical industries where applicable, cement, chemical, food processing, agriculture & pulp & paper.



### Features:

**Design** - NEMA Standard MG-1, design B, ambient temperature of 40°C, altitude 1000M, temperature rise B.

**Agency Listings and Standard** - NEMA MG1, IEEE, IEC, DOE registered, NRCAN, CSAUS and CSA Certified, CE and RoHS Compliant

**Service Factor** - 1.15

**Electrical Supply** - 3 phase, 230/460VAC, 575VAC @ 60 hz, 3 phase 190/380VAC @ 50 Hz rated to the next lower HP. (± 10% Voltage tolerance)

**Windings** - Highest quality Corona resistant, Inverter duty copper wire. VPI impregnated with additional dip and bake.

**Efficiency** - Integral HP models meet or exceed NEMA Premium efficiency levels.

**Insulation** - Class F insulation, with non-hydroscopic motor leads.

**Bearings** - Permanently Lubricated High quality Double Shielded Ball Bearings with oversized DE bearings. Lithium based grease operating temperature range – 25° through 175°C.

**Enclosure Protection** - Totally Enclosed Fan Cooled meeting IEC standard IP55. Factory Certified Division 2 Class I Groups A, B, C, D Class II Groups F, G. Meets Temp Code T2B.

**Frame Construction** - Rolled Steel with cast aluminum end shields.

**Conduit Box** - With ½ NPT knockouts positioned for wiring access every 90° with rubber gasket between box and motor frame.

**Inverter Duty** - Constant torque: 10/1 ratio, variable torque: 20/1 ratio

**Nameplate** - Stainless steel with etched details.

**Drain Hole** - Positioned in the stator frame at the lowest point, when motors are horizontally mounted.

**Fan cover** - Plastic fan & heavy duty plastic fan guard

**Warranty** - 1 year



# JET PUMP 56J 3 PHASE AC MOTORS

HEAVY GAUGE ROLLED STEEL CONSTRUCTION

TEFC TOTALLY ENCLOSED FAN COOLED



| HP   | FL RPM | VOLTS       | FRAME | CAT NO.    | CONSTRUCTION | NOM EFF. | F.L. AMPS      | CODE | WT (Lbs) | DE BRG | ODE BRG | "C" Dimension (Inch) |
|------|--------|-------------|-------|------------|--------------|----------|----------------|------|----------|--------|---------|----------------------|
| 0,33 | 3481   | 208-230/460 | 56J   | MQR-132JH  | Rolled Steel | 67,6     | 1.28-1.31/0.66 | L    | 21       | 6205   | 6203    | 11.1                 |
|      | 3470   | 575         | 56J   | MPR-132JH  | Rolled Steel | 62,8     | 0,57           | L    | 21       | 6205   | 6203    | 11.1                 |
|      | 1744   | 208-230/460 | 56J   | MQR-134JH  | Rolled Steel | 66,1     | 1.53-1.63/0.82 | L    | 22       | 6205   | 6203    | 11.1                 |
|      | 1750   | 575         | 56J   | MPR-134JH  | Rolled Steel | 69,2     | 0,58           | L    | 22       | 6205   | 6203    | 11.1                 |
| 0,50 | 3466   | 208-230/460 | 56J   | MQR-122JH  | Rolled Steel | 71,6     | 1.74-1.67/0.84 | L    | 21       | 6205   | 6203    | 11.1                 |
|      | 3471   | 575         | 56J   | MPR-122JH  | Rolled Steel | 69,3     | 0,672          | L    | 21       | 6205   | 6203    | 11.1                 |
|      | 1741   | 208-230/460 | 56J   | MQR-124JH  | Rolled Steel | 74,1     | 1.9-1.95/0.98  | L    | 24       | 6205   | 6203    | 11.1                 |
|      | 1753   | 575         | 56J   | MPR-124JH  | Rolled Steel | 77,1     | 0,71           | L    | 24       | 6203   | 6203    | 11.1                 |
| 0,75 | 3469   | 208-230/460 | 56J   | MQR-342JH  | Rolled Steel | 80,3     | 2.24-2.08/1.04 | L    | 22,5     | 6205   | 6203    | 11.1                 |
|      | 3474   | 575         | 56J   | MPR-342JH  | Rolled Steel | 76,2     | 0,86           | L    | 22,5     | 6205   | 6203    | 11.1                 |
|      | 1738   | 208-230/460 | 56J   | MQR-344JH  | Rolled Steel | 80,7     | 2.43-2.34/1.18 | L    | 25,3     | 6205   | 6203    | 11.1                 |
|      | 1744   | 575         | 56J   | MPR-344JH  | Rolled Steel | 80,5     | 0,91           | L    | 25,3     | 6205   | 6203    | 11.1                 |
| 1    | 3506   | 208-230/460 | 56J   | MQRP-102JH | Rolled Steel | 82,7     | 2.92-2.75/1.38 | L    | 25       | 6205   | 6203    | 11.1                 |
|      | 3510   | 575         | 56J   | MPRP-102JH | Rolled Steel | 80,7     | 1,14           | L    | 25       | 6205   | 6203    | 11.1                 |
|      | 1752   | 208-230/460 | 56J   | MQRP-104JH | Rolled Steel | 86,5     | 3.01-2.82/1.41 | L    | 27       | 6205   | 6203    | 11.1                 |
|      | 1756   | 575         | 56J   | MPRP-104JH | Rolled Steel | 85,6     | 1,14           | L    | 27       | 6205   | 6203    | 11.1                 |
| 1,5  | 3492   | 208-230/460 | 56J   | MQRP-152JH | Rolled Steel | 86,6     | 4.03-3.81/1.9  | L    | 28       | 6205   | 6203    | 11.1                 |
|      | 3478   | 575         | 56J   | MPRP-152JH | Rolled Steel | 85,1     | 1,61           | L    | 28       | 6205   | 6203    | 11.1                 |
|      | 1752   | 208-230/460 | 56J   | MQRP-154JH | Rolled Steel | 86,6     | 4.59-4.41/2.21 | L    | 31       | 6205   | 6203    | 11.9                 |
|      | 1745   | 575         | 56J   | MPRP-154JH | Rolled Steel | 86,7     | 1,65           | L    | 31       | 6205   | 6203    | 11.9                 |
| 2    | 3500   | 208-230/460 | 56J   | MQRP-202JH | Rolled Steel | 85,5     | 5.39-5.05/2.53 | L    | 32       | 6205   | 6203    | 11.9                 |
|      | 3502   | 575         | 56J   | MPRP-202JH | Rolled Steel | 86       | 2,03           | L    | 32       | 6205   | 6203    | 11.9                 |
|      | 1741   | 208-230/460 | 56J   | MQRP-204JH | Rolled Steel | 87,1     | 6.0-5.43/2.74  | L    | 37       | 6205   | 6203    | 12.9                 |
|      | 1752   | 575         | 56J   | MPRP-204JH | Rolled Steel | 87,6     | 2,15           | L    | 37       | 6205   | 6203    | 12.9                 |
| 3    | 3513   | 208-230/460 | 56J   | MQRP-302JH | Rolled Steel | 87,6     | 7.81-7.18/3.54 | L    | 42       | 6205   | 6203    | 12.9                 |
|      | 3512   | 575         | 56J   | MPRP-302JH | Rolled Steel | 87,6     | 3,05           | L    | 42       | 6205   | 6203    | 12.9                 |