# FUJITSU



# **FH\*\*TPS SERIES**

PSC Motor Efficiencies: Up to 15 SEER

# FH\*\*TQS\* SERIES

Constant Torque Motor Efficiencies up to 15 SEER

Manufactured for **Fujitsu General America, Inc.** Fairfield, NJ

\*FH4221TQSTJSN Model Only









# STANDARD EFFICIENCY AIR HANDLER

# Features

- Versatile 4-way convertible design for upflow, downflow, horizontal left and horizontal right applications.
- Factory-installed indoor coil.
- Sturdy cabinet construction with 1.0 inch [25.4 mm] of foil faced insulation for excellent sound and insulating characteristics.
- Field-installed auxiliary electric heater kits provide exact heat for indoor comfort. Kits include circuit breakers which meet U.L. and cUL requirements for service disconnect.
- 11/2 ton [5.3 kW] through 5 ton [17.6 kW] models are between 421/2 to 551/2 inches [1080 to 1410 mm] tall and 22 inches [559 mm] deep.
- All models meet or exceed 330 to 400 CFM [156 to 189 L/s] per ton at .3 inches [.7 kPa] of external static pressure.
- Enhanced airflow up to .7" external static pressure.
- Evaporator is constructed of aluminum fins bonded to internally grooved aluminum tubing.
- Cabinet air leakage less than 2% at 1 inch H<sub>2</sub>O when tested in accordance with ASHRAE standard 193

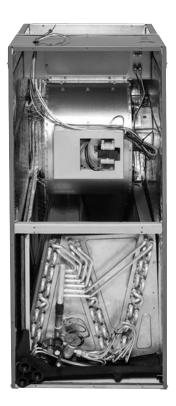
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# **Engineering Features**

- The most compact unit design available, all standard heat air handler models only 421/2 to 551/2 inches [1079 to 1409 mm] high.
- Attractive pre-painted cabinet exterior.
- Rugged wall steel cabinet construction, designed for added strength and versatility.
- 1.0" foil faced insulation mechanically retained in blower compartment for excellent thermal and sound performance.
- Four leg blower motor mount.
- Blower housing with controls, motor and blower. Slide out design for service and maintenance convenience.
- Traditional open wire element design for heat applications.
- Field convertible for vertical downflow, horizontal left hand or right hand air supply.
- 3 combustible floor base accessories fit all model sizes when required for downflow installations on combustible floors.
- Indoor coil design provides low air side pressure drop, high performance and extremely compact size.
- Expansion valve on indoor coil provides for operation with air conditioning.
- [ ] Designates Metric Conversions

- Coils are constructed of aluminum fins bonded to internally grooved aluminum tubing.
- Coils are tested at the factory with an extensive refrigerant leak check.
- Coils have copper sweat refrigerant connections.
- Coils utilize chatleff metering device connections.
- Molded polymer corrosion resistant condensate drain pan is provided on all indoor coils.
- Supply duct flanges provided as standard on air handler cabinet.
- Provisions for field electrical, connections available from either side or top of the air handler cabinet.
- Connection point for high voltage wiring is inside the air handler cabinet. Low voltage connection is made on the outside of the air handler cabinet.
- Concentric knockouts are provided for power connection to cabinet. Installer may pull desired hole size up to 2 inches [51 mm] for 1<sup>1</sup>/<sub>2</sub> inch [38 mm] conduit.
- Front refrigerant and drain connections.



# **Model Number Identification**

| <u>FH</u>                    | <u>18</u>   | <u>17</u>         | Ţ                  | <u>P</u>                          | <u>S</u>            | <u>v</u>                                    | <u>s</u>     | <u>00</u> | <u>N</u>              |
|------------------------------|---|-------------------|--------------------|-----------------------------------|---------------------|---|--------------|-----------|-----------------------|
| Product                      | Capacity  | Width             | Metering<br>Device | Motor                             | Speed               | Volt  | Efficiency   | Heater    | Communication         |
| Air Handler<br>FH = H Series | 18 = 18,000 [5.28 kW]<br>24 = 24,000 [7.03 kW]<br>30 = 30,000 [8.79 kW]<br>36 = 36,000 [10.55 kW]<br>42 = 42,000 [12.31 kW]<br>48 = 48,000 [14.07 kW] | 17"<br>21"<br>24" | T = TEV            | P = PSC<br>Q = Constant<br>Torque | S = Single<br>Stage | A= 115 1ph<br>J = 208/230 1ph<br>D= 460 3ph | S = Standard |           | N = Non-Communicating |

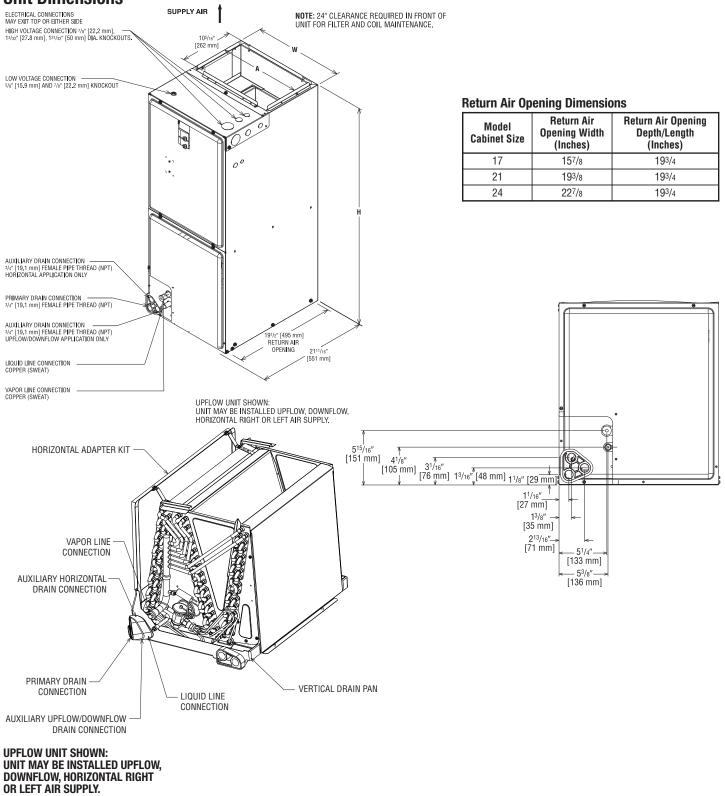
60 = 60,000 [17.58 kW]

| Available Models at 115V A Voltage |
|------------------------------------|
| FH1817TPSASN                       |
| FH2417TPSASN                       |
| FH3017TPSASN                       |
| FH3617TPSASN                       |
| FH3617TPSJS                        |
| FH4221TPSASN                       |
| FH4821TPSASN                       |

| Available Models at 218V J Voltage |
|------------------------------------|
| FH1817TPSJSN                       |
| FH2417TPSJSN                       |
| FH3017TPSJSN                       |
| FH3617TPSJSN                       |
| FH3621TPSJSN                       |
| FH4221TPSJSN                       |
| FH4821TPSJSN                       |
| FH4824TPSJSN                       |
| FH6024TPSJSN                       |
| FH4221TQSJSN                       |

| Available Models at D Voltage |  |
|-------------------------------|--|
| FH3617TPSDSN                  |  |
| FH3621TPSDSN                  |  |
| FH4221TPSDSN                  |  |
| FH4821TPSDSN                  |  |
| FH4824TPSDSN                  |  |
| FH6024TPSDSN                  |  |





[ ] Designates Metric Conversions

() Designates Unit with Double Coil Cabinet

## **Unit Dimensions & Weights**

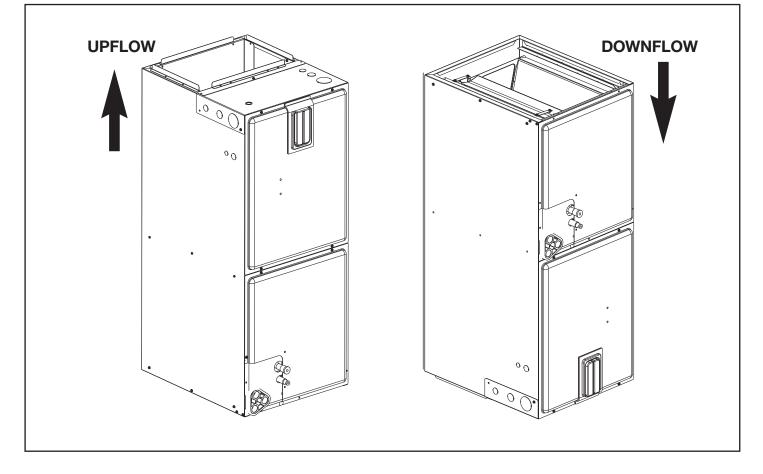
| Model<br>Size |                        | t Connections<br>1.) [mm] ID | Unit<br>Width            | Unit<br>Heiaht            | Supply<br>Duct           | Air I<br>CFM (No | Flow<br>m.) [L/s] | Unit Weight/Shipping Weight<br>(Lbs.) [kg] |
|---------------|------------------------|------------------------------|--------------------------|---------------------------|--------------------------|------------------|-------------------|--|
| FH**TPS       | Liquid                 | Vapor                        | "W" In. [mm]             | "H" In. [mm]              | "A" In. [mm]             | Lo               | Hi                | Unit With<br>Coil (Max. KW)                |
| 1817/2417     | <sup>3</sup> /8 [9.53] | <sup>3</sup> /4 [19.05]      | 17 <sup>1</sup> /2 [445] | 42 <sup>1</sup> /2 [1080] | 16 [406]                 | 600 [283]        | 800 [378]         | 81/95 [37/43]                              |
| 3017/3617     | <sup>3</sup> /8 [9.53] | <sup>3</sup> /4 [19.05]      | 17 <sup>1</sup> /2 [445] | 42 <sup>1</sup> /2 [1080] | 16 [406]                 | 1000 [472]       | 1200 [566]        | 90/104 [41/47]                             |
| 3621          | 3/8 [9.53]             | 7/8 [22.23]                  | 21 [533]                 | 421/2 [1080]              | 19 <sup>1</sup> /2 [495] | 1200 [566]       | _                 | 109/124 [49/56]                            |
| 4221/4821     | 3/8 [9.53]             | 7/8 [22.23]                  | 21 [533]                 | 50 <sup>1</sup> /2 [1282] | 19 <sup>1</sup> /2 [495] | 1400 [661]       | 1600 [755]        | 130/146 [59/66]                            |
| 4824          | <sup>3</sup> /8 [9.53] | 7/8 [22.23]                  | 241/2 [622]              | 50 <sup>1</sup> /2 [1282] | 23 [584]                 | 1600 [755]       | _                 | 143/161 [65/73]                            |
| 6024          | <sup>3</sup> /8 [9.53] | <sup>7</sup> /8 [22.23]      | 241/2 [622]              | 55 <sup>1</sup> /2 [1410] | 23 [584]                 | —                | 1800 [850]        | 164/181 [75/82]                            |

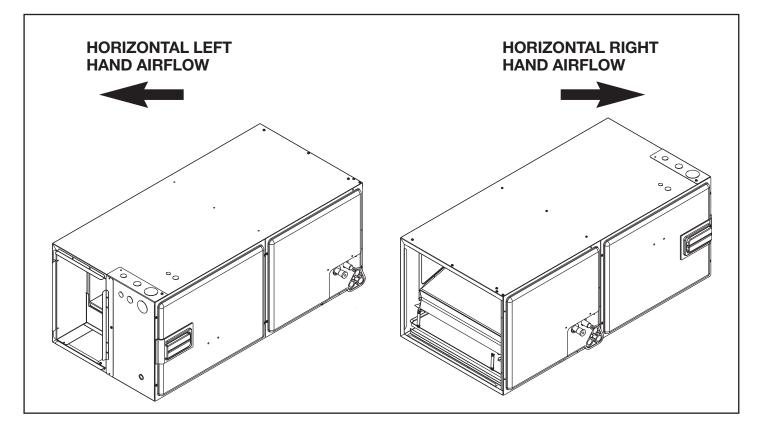
\*Maximum dehumidification airflow.

## **Unit Dimensions & Weights**

| Model<br>Size |                        | t Connections<br>1.) [mm] ID | Unit<br>Width | Unit<br>Height | Supply<br>Duct | Air Flow<br>CFM (Nom.) [L/s] |            | Unit Weight/Shipping Weight<br>(Lbs.) [kg] |
|---------------|------------------------|------------------------------|---------------|----------------|----------------|------------------------------|------------|--|
| FH**TQS       | Liquid                 | Vapor                        | "W" In. [mm]  | "H" In. [mm]   | "A" In. [mm]   | Lo                           | Hi         | Unit With<br>Coil (Max. KW)                |
| 4221          | <sup>3</sup> /8 [9.53] | 7/8 [22.23]                  | 21 [533]      | 501/2 [1282]   | 191/2 [495]    | 1400 [661]                   | 1600 [755] | 128/144 [56/65]                            |

# **Airflow Directional Data**





## **Airflow Performance**

Airflow performance data is based on cooling performance with a coil and no filter in place. Select performance table for appropriate unit size, voltage and number of electric heaters to be used. Make sure external static applied to unit allows operation within the minimum and maximum limits shown in table

below for both cooling and electric heat operation. For optimum blower performance, operate the unit in the .3 [8 mm] to .7 inches [18 mm] W.C. external static range. Units with coils should be applied with a minimum of .1 inch [3 mm] W.C. external static range.

# **Airflow Operating Limits**

| Model Cabinet Width   | 1               | 7               | 17              | 7/21             | 2                | 1                | 2                | 4                |
|---|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|
| Cooling BTUH x 1,000<br>Cooling Tons Nominal  | -18<br>1.5      | -24<br>2        | -30<br>2.5      | -36<br>3         | -42<br>3.5       | -48<br>4         | -48<br>4         | -60<br>5         |
| Heat Pump or Air Conditioning<br>Maximum Heat/Cool CFM [L/s]<br>(37.5 CFM [18 L/s]/1,000 BTUH)<br>(450 CFM [212 L/s]/Ton Nominal) | 675<br>[319]    | 900<br>[425]    | 1125<br>[531]   | 1350<br>[637]    | 1575<br>[743]    | 1800<br>[850]    | 1800<br>[850]    | 1930<br>[911]    |
| Heat Pump or Air Conditioning<br>Nominal Heat/Cool CFM [L/s]<br>(33.3 CFM [16 L/s]/1,000 BTUH)<br>(400 CFM [189 L/s]/Ton Nominal) | 600<br>[283]    | 800<br>[378]    | 1000<br>[472]   | 1200<br>[566]    | 1400<br>[661]    | 1600<br>[755]    | 1600<br>[755]    | 1800<br>[850]    |
| Heat Pump or Air Conditioning<br>Minimum Heat/Cool CFM [L/s]<br>(30.0 CFM [14 L/s]/1,200 BTUH)<br>(360 CFM [170 L/s]/Ton Nominal) | 540<br>[255]    | 720<br>[340]    | 900<br>[425]    | 1080<br>[510]    | 1260<br>[595]    | 1440<br>[680]    | 1440<br>[680]    | 1620<br>[765]    |
| Maximum kW Electric Heating<br>& Minimum Electric Heat CFM [L/s]  | 13<br>487 [230] | 13<br>617 [291] | 18<br>814 [384] | 18<br>1054 [497] | 20<br>1171 [553] | 25<br>1502 [709] | 25<br>1502 [709] | 30<br>1666 [786] |
| Maximum Electric Heat Rise °F [°C]  | 80 [26.7]       | 63 [17.2]       | 66 [18.9]       | 51 [10.6]        | 49 [9.4]         | 50 [10]          | 50 [10]          | 54 [12.2]        |

# 115V/208V/480V Airflow Performance Data—FH\*\*TPS (PSC Motor)

| Model                     | Motor                           | Manufacturer                   | Blower Size/                    |       |       |  | PSC CFM [L | /s] Air Delive | ry/RPM/Watts | s—115V/208 | V/480V Volts |            |  |  |
|---------------------------|---------------------------------|--------------------------------|---------------------------------|-------|-------|--|------------|----------------|--------------|------------|--------------|------------|--|--|
| No.                       | Speed<br>from                   | Recommended<br>Air-Flow Range  | Motor<br>HP [W]                 | Motor |       | External Static Pressure—Inches W.C. [kPa] |            |                |              |            |              |            |  |  |
| FH**TPS                   | Factory                         | (Min/Max) CFM                  | # of Speed                      | Speed |       | 0.1 [.02]                                  | 0.2 [.05]  | 0.3 [.07]      | 0.4 [.10]    | 0.5 [.12]  | 0.6 [.15]    | 0.7 [.17]  |  |  |
|                           | ,                               |                                |                                 |       | CFM   | 668 [315]                                  | 637 [301]  | 595 [281]      | 560 [264]    | 517 [244]  | _            | _          |  |  |
|                           |                                 |                                |                                 | Low   | RPM   | 541  | 596        | 657            | 706          | 761        | _            | _          |  |  |
| 1817                      | High                            | 517/711 CFM                    | 10x6                            |       | Watts | 180  | 171        | 166            | 161          | 109        | _            | —          |  |  |
| No Heater                 | 240V                            | [244/336 L/s]                  | 1/5 HP [149]<br>2 Speed         |       | CFM   | _  | _          | _              | _            | 711 [336]  | 662 [312]    | 614 [290]  |  |  |
|                           |                                 |                                |                                 | High  | RPM   | _  | _          | _              | _            | 812        | 853          | 890        |  |  |
|                           |                                 |                                |                                 |       | Watts | —  | —          | —              | —            | 243        | 227          | 210        |  |  |
|                           |                                 |                                |                                 |       | CFM   | 638 [301]                                  | 607 [286]  | 565 [267]      | 530 [250]    | 487 [230]  | —            | —          |  |  |
|                           |                                 |                                |                                 | Low   | RPM   | 571  | 626        | 687            | 736          | 791        | —            | —          |  |  |
| 1817<br>with 13 kW        | 2 kW   HIGH   487/001 UFW   1/5 | 10x6<br>1/5 HP [149]           |                                 | Watts | 171   | 162  | 157        | 152            | 146          | —          | _            |            |  |  |
| Heater 240V [230/312 L/s] | 2 Speed                         |                                | CFM                             |       | —     | —  | —          | 661 [312]      | 612 [289]    | 564 [266]  |              |            |  |  |
|                           |                                 | High                           | RPM                             | _     | —     | —  | —          | 837            | 878          | 915        |              |            |  |  |
|                           |                                 |                                | Watts                           |       | —     | _  | _          | 232            | 216          | 199        |              |            |  |  |
|                           |                                 |                                |                                 |       | CFM   | 817 [386]                                  | 779 [368]  | 757 [357]      | 693 [327]    | 647 [305]  | _            | —          |  |  |
|                           |                                 |                                |                                 | Low   | RPM   | 616  | 667        | 715            | 770          | 808        | —            | —          |  |  |
| 2417                      | High                            | 647/888 CFM                    | 10x6<br>1/5 HP [149]            |       | Watts | 239  | 230        | 221            | 206          | 205        | —            | —          |  |  |
| No Heater                 | 240V                            | [305/419 L/s]                  | 2 Speed                         |       | CFM   | —  | —          | —              | —            | 888 [419]  | 828 [391]    | 774 [365]  |  |  |
|                           |                                 |                                |                                 | High  | RPM   |  | —          | _              | _            | 875        | 908          | 958        |  |  |
|                           |                                 |                                |                                 |       | Watts | —  | _          | _              | _            | 331        | 313          | 301        |  |  |
|                           |                                 |                                |                                 |       | CFM   | 787 [371]                                  | 749 [353]  | 727 [343]      | 663 [313]    | 617 [291]  | —            | —          |  |  |
|                           |                                 | 617/838 CFM<br>[291/395 L/s]   | 10x6<br>1/5 HP [149]<br>2 Speed | Low   | RPM   | 646  | 697        | 745            | 800          | 838        | _            | —          |  |  |
| 2417<br>with 13 kW        | High                            |                                |                                 |       | Watts | 230  | 221        | 212            | 197          | 187        | _            | —          |  |  |
| Heater                    | 240V                            |                                |                                 |       | CFM   | _  | _          | _              | _            | 838 [395]  | 778 [367]    | 724 [342]  |  |  |
|                           |                                 |                                |                                 |       | RPM   | _  | _          | _              | _            | 900        | 933          | 983        |  |  |
|                           |                                 |                                |                                 |       | Watts |  | —          | —              | —            | 320        | 302          | 290        |  |  |
|                           |                                 |                                |                                 |       | CFM   | 1022 [482]                                 | 987 [466]  | 940 [444]      | 903 [426]    | 864 [408]  | _            | _          |  |  |
|                           |                                 |                                | 10.0                            | Low   | RPM   | 700  | 754        | 794            | 633          | 870        | —            | _          |  |  |
| 3017                      | High                            | 864/1004 CFM                   | 10x8<br>1/4 HP [186]            |       | Watts | 344  | 313        | 302            | 309          | 288        | —            | _          |  |  |
| No Heater                 | 240V                            | [408/474 L/s]                  | 2 Speed                         |       | CFM   | —  | —          | —              | —            | 1004 [474] | 951 [449]    | 883 [417]  |  |  |
|                           |                                 |                                |                                 | High  | RPM   |  | —          | —              | —            | 924        | 953          | 975        |  |  |
|                           |                                 |                                |                                 |       | Watts | —  | —          | —              | —            | 364        | 352          | 344        |  |  |
|                           |                                 |                                |                                 |       | CFM   | 972 [459]                                  | 937 [442]  | 890 [420]      | 853 [403]    | 814 [384]  | _            | _          |  |  |
| 3017                      |                                 |                                | 10x8                            | Low   | RPM   | 750  | 804        | 844            | 883          | 920        | _            | _          |  |  |
| with 18 kW                | High                            | 814/904 CFM                    | 1/4 HP [186]                    |       | Watts | 324  | 293        | 282            | 274          | 268        | _            | _          |  |  |
| Heater                    | 240V                            | [384/427 L/s]                  | 2 Speed                         |       | CFM   |  |            | _              | _            | 904 [427]  | 851 [402]    | 783 [370]  |  |  |
|                           |                                 |                                |                                 | High  | RPM   |  | _          | _              | _            | 949        | 978          | 1000       |  |  |
|                           |                                 |                                |                                 |       | Watts | —  | —          | —              | —            | 334        | 322          | 314        |  |  |
|                           |                                 |                                |                                 |       | CFM   | 1201 [567]                                 | 1170 [552] | 1141 [538]     | 1104 [521]   | 1062 [501] | —            | _          |  |  |
| 3617/                     |                                 |                                | 10x8                            | Low   | RPM   | 833  | 872        | 909            | 951          | 965        | —            |            |  |  |
| 3621                      | High                            | 1104/1248 CFM<br>[521/589 L/s] | 1/3 HP [249]                    |       | Watts | 462  | 427        | 406            | 396          | 385        | -            |            |  |  |
| No Heater                 |                                 | [321/309 L/8]                  | 2 Speed                         |       | CFM   |  | —          | —              | —            | 1194 [563] | 1134 [535]   | 1078 [509] |  |  |
|                           |                                 |                                |                                 | High  | RPM   |  |            |                |              | 1024       | 1042         | 1060       |  |  |
|                           |                                 |                                |                                 |       | Watts | —  |            |                | _            | 475        | 454          | 417        |  |  |

 Notes:
 • All 208/240V PSC motors have voltage taps for 208 and 240 volts.
 • All 208/240V PSC motors are shipped on high speed and 240 volts.

 • If the application external static is less than 0.5" WC, adjust the motor speed to the low static speed as described below:
 • Unplug the black motor wire off the relay on the control board and plug in the red motor wire.

 • Replace the cap on the black motor wire.
 • Voltage change (208/240V motors):

 • Move the orange lead to transformer 208V tap from 240V tap. Replace the wire cap on 240V tap.

 • Unplug the purple motor wire off the transformer and plug in the yellow motor wire.

 • Replace the cap on the purple motor wire.

 • Beplace the cap on the purple motor wire.

 • Move the orange lead to transformer 208V tap from 240V tap. Replace the wire cap on 240V tap.

 • Unplug the purple motor wire off the transformer and plug in the yellow motor wire.

 • Replace the cap on the purple motor wire.

 • Replace the cap on the purple motor wire.

 • The above airflow table lists the airflow information for air handlers without heater and air handler with maximum heater allowed for each model.

 • The following formula can be used to calculate the approximate airflow if a smaller (M kW) than the maximum heater kit is installed

The following formula can be used to calculate the approximate airflow, if a smaller (N kW) than the maximum heater kit is installed.
 Approximate Airflow = Airflow without heater - (Airflow without heater - Airflow with maximum heater) x (N kW/maximum heater kW)

# 115V/208V/480V Airflow Performance Data—FH\*\*TPS (PSC Motor)

| Model                | Motor         | Manufacturer                   | Blower Size/                     |                |            |            | PSC CFM [                                  | L/s] Air Deliv | ery/RPM/Wai | tts—115/208, | /480V Volts |            |  |  |
|----------------------|---------------|--------------------------------|----------------------------------|----------------|------------|------------|--|----------------|-------------|--------------|-------------|------------|--|--|
| No.                  | Speed<br>from | Recommended<br>Air-Flow Range  | Motor<br>HP [W]                  | Motor<br>Speed |            |            | External Static Pressure—Inches W.C. [kPa] |                |             |              |             |            |  |  |
| FH**TPS              | Factory       | (Min/Max) CFM                  | # of Speed                       | Sheen          |            | 0.1 [.02]  | 0.2 [.05]                                  | 0.3 [.07]      | 0.4 [.10]   | 0.5 [.12]    | 0.6 [.15]   | 0.7 [.17]  |  |  |
|                      |               |                                | -                                |                | CFM        | 1151 [543] | 1120 [529]                                 | 1091 [515]     | 1054 [497]  | 1012 [478]   | _           | _          |  |  |
| 0617/                |               |                                |                                  | Low            | RPM        | 883        | 922  | 959            | 1001        | 1015         | _           | _          |  |  |
| 3617/<br>3621        | 11.1          | 1054/1148 CFM                  | 10x8                             |                | Watts      | 442        | 407  | 386            | 376         | 365          | _           | _          |  |  |
| with 18 kW           | High          | [497/542 L/s]                  | 1/3 HP [249]<br>2 Speed          |                | CFM        | —          | _  | _              | _           | 1094 [516]   | 1034 [488]  | 978 [462]  |  |  |
| Heater               |               |                                |                                  | High           | RPM        | _          | _  | _              |             | 1049         | 1067        | 1085       |  |  |
|                      |               |                                |                                  |                | Watts      | _          | _  | _              |             | 445          | 424         | 387        |  |  |
|                      |               |                                |                                  |                | CFM        | 1493 [705] | 1449 [684]                                 | 1363 [643]     | 1287 [607]  | 1211 [571]   | —           | —          |  |  |
|                      |               |                                |                                  | Low            | RPM        | 822        | 858  | 885            | 931         | 958          | —           | _          |  |  |
| 4221                 | High          | 1241/1537 CFM                  | 10x10<br>1/2 HP [373]            |                | Watts      | 540        | 519  | 506            | 484         | 459          | —           | —          |  |  |
| No Heater            | riigii        | [580/725 L/s]                  | 2 Speed                          |                | CFM        |            |  | —              | 1           | 1514 [714]   | 1411 [666]  | 1315 [621] |  |  |
|                      |               | High                           | RPM                              |                |            | —          |  | 1061           | 1069        | 1078         |             |            |  |  |
|                      |               |                                |                                  |                | Watts      | _          |  |                |             | 710          | 702         | 677        |  |  |
|                      |               |                                |                                  |                | CFM        | 1423 [672] | 1379 [651]                                 | 1293 [610]     | 1217 [574]  | 1141 [538]   | —           | —          |  |  |
|                      |               |                                |                                  | Low            | RPM        | 870        | 882  | 925            | 957         | 992          | —           | —          |  |  |
| 4221<br>with 20 kW   | High          | 1225/1500 CFM                  | 10x10<br>1/2 HP [373]            |                | Watts      | 514        | 508  | 490            | 461         | 431          | —           | —          |  |  |
| Heater               | riigii        | [538/667 L/s]                  | 2 Speed                          |                | CFM        | —          | —  | —              | _           | 1414 [667]   | 1311 [619]  | 1215 [573] |  |  |
|                      |               |                                |                                  | High           | RPM        | —          | —  | —              | —           | 1067         | 1080        | 1094       |  |  |
|                      |               |                                |                                  |                | Watts      | —          | —  | —              | —           | 700          | 678         | 665        |  |  |
|                      |               |                                |                                  |                | CFM        | 1488 [702] | 1419 [670]                                 | 1466 [692]     | 1430 [675]  | 1395 [658]   | —           | _          |  |  |
|                      |               | th 1395/1824 CFM               | 10x10<br>3/4 HP [559]<br>2 Speed | Low            | RPM        | 812        | 861  | 912            | 943         | 973          | —           | —          |  |  |
| 4821/<br>4824        | High          |                                |                                  |                | Watts      | 554        | 545  | 526            | 508         | 491          | —           | —          |  |  |
| No Heater            | riigii        | [658/861 L/s]                  |                                  |                | CFM        | —          | _  | —              | _           | 1824 [861]   | 1767 [834]  | 1653 [780] |  |  |
|                      |               |                                |                                  | High           | RPM        | —          | —  | —              | —           | 1102         | 1112        | 1121       |  |  |
|                      |               |                                |                                  |                | Watts      | _          |  | —              |             | 871          | 830         | 770        |  |  |
|                      |               |                                |                                  |                | CFM        | 1418 [669] | 1349 [637]                                 | 1396 [659]     | 1360 [642]  | 1325 [625]   | —           | —          |  |  |
| 4821/                |               |                                | 10.10                            | Low            | RPM        | 862        | 899  | 935            | 965         | 995          | —           | _          |  |  |
| 4824                 | High          | 1225/1500 CFM                  | 10x10<br>3/4 HP [559]            |                | Watts      | 534        | 525  | 506            | 488         | 471          | —           | _          |  |  |
| with 25 kW<br>Heater |               | [695/796 L/s]                  | 2 Speed                          |                | CFM        | —          | —  | —              | _           | 1724 [814]   | 1667 [787]  | 1553 [733] |  |  |
| induction            |               |                                |                                  | High           | RPM        | —          | _  | —              | _           | 1116         | 1119        | 1130       |  |  |
|                      |               |                                |                                  |                | Watts      | —          | _  | —              | _           | 810          | 780         | 730        |  |  |
|                      |               |                                |                                  |                | CFM        | 1866 [881] | 1833 [865]                                 | 1806 [852]     | 1772 [836]  | 1710 [807]   | _           | _          |  |  |
|                      |               |                                | 11x11                            | Low            | RPM        | 764        | 803  | 824            | 856         | 886          | _           | _          |  |  |
| 6024                 | High          | 1766/1965 CFM                  | 3/4 HP [559]                     |                | Watts      | 778        | 756  | 733            | 715         | 701          | _           | _          |  |  |
| No Heater            |               | [833/927 L/s]                  | 2 Speed                          |                | CFM        |            |  | _              | _           | 1967 [928]   |             | 1863 [879] |  |  |
|                      |               |                                | High                             | RPM            |            |            | —  |                | 948         | 959          | 991         |            |  |  |
|                      |               |                                | Watts                            | —              | —          | —          | —  | 850            | 827         | 816          |             |            |  |  |
|                      |               |                                |                                  | CFM            | 1796 [848] | 1763 [832] | 1736 [819]                                 | 1702 [803]     | 1640 [774]  | —            | —           |            |  |  |
| 6024                 |               |                                | 11x11                            | Low            | RPM        | 828        | 860  | 878            | 890         | 1001         |             |            |  |  |
| with 30 kW           | High          | 1225/1500 CFM<br>[695/796 L/s] | 3/4 HP [559]                     |                | Watts      | 735        | 718  | 705            | 695         | 678          | -           | -          |  |  |
| Heater               | -             | [033/130 L/S]                  | 2 Speed                          |                | CFM        |            |  |                |             | 1867 [881]   | 1816 [857]  | 1763 [832] |  |  |
|                      |               |                                |                                  | High           | RPM        |            |  |                |             | 989          | 1005        | 1020       |  |  |
|                      |               |                                |                                  |                | Watts      | —          | _  | _              | _           | 818          | 795         | 780        |  |  |

Notes: • All 208/240V PSC motors have voltage taps for 208 and 240 volts.

All 208/240V PSC motors are shipped on high speed and 240 volts.

All 115V PSC motors are shipped on high speed

 If the application external static is less than 0.5" WC, adjust the motor speed to the low static speed as described below:

. Unplug the black motor wire off the relay on the control board and

plug in the red motor wire.

• Replace the cap on the black motor wire.

• Voltage change (208/240V motors):

 Move the orange lead to transformer 208V tap from 240V tap. Replace the wire cap on 240V tap.

• Unplug the purple motor wire off the transformer and plug in the yellow motor wire.

Replace the cap on the purple motor wire.

All 480V PSC motors are shipped on high speed.

If the application external static is less than 0.5" WC, adjust the motor speed to the low static speed as described below for 3-ton through 4-ton air handlers.

• Unplug the black motor wire off the relay and remove the cap from

the red motor wire.

 Plug the red motor wire to the relay and connect the black motor wire with the yellow motor wire.

 For 5-ton air handler, unplug the black motor wire off the relay and plug in the red motor wire, then cap the black motor wire. There is no yellow motor wire on 5-ton air handler.

WARNING: Do not connect red motor wire with yellow motor wire in any circumstance on 480V PSC motors. Connecting red motor wire with yellow motor wire will result in permanent motor damage.

 The above airflow table lists the airflow information for air handlers without heater and air handler with maximum heater allowed for each model.

 The following formula can be used to calculate the approximate airflow, if a smaller (N kW) than the maximum heater kit is installed. Approximate Airflow = Airflow without heater -(Airflow without heater - Airflow with maximum heater) x (N kW/maximum heater kW)

# 240V Airflow Performance Data—FH\*\*TPS (PSC Motor)

| Model                         | Motor                   | Manufacturer                  | Blower Size/                    | Mate           |       |  | PSC C      | FM [L/s] Air | Delivery/RPN | 1/Watts—240 | Volts      |            |  |
|-------------------------------|-------------------------|-------------------------------|---------------------------------|----------------|-------|--|------------|--------------|--------------|-------------|------------|------------|--|
| No.                           | Speed<br>from           | Recommended<br>Air-Flow Range | Motor<br>HP [W]                 | Motor<br>Speed |       | External Static Pressure—Inches W.C. [kPa] |            |              |              |             |            |            |  |
| FH**TPS                       | Factory                 | (Min/Max) CFM                 | # of Speed                      | Sheen          |       | 0.1 [.02]                                  | 0.2 [.05]  | 0.3 [.07]    | 0.4 [.10]    | 0.5 [.12]   | 0.6 [.15]  | 0.7 [.17]  |  |
|                               |                         |                               |                                 |                | CFM   | 681 [321]                                  | 636 [300]  | 606 [286]    | 567 [268]    | 523 [247]   | _          | _          |  |
|                               |                         |                               |                                 | Low            | RPM   | 541  | 601        | 670          | 714          | 768         | _          | _          |  |
| 1817                          |                         | 523/705 CFM                   | 10x6                            |                | Watts | 193  | 181        | 173          | 164          | 157         | _          | _          |  |
| No Heater                     | High                    | [247/333 L/s]                 | 1/5 HP [149]<br>2 Speed         |                | CFM   | _  | _          | _            | _            | 705 [333]   | 650 [307]  | 599 [283]  |  |
|                               |                         |                               |                                 | High           | RPM   | _  | _          | _            | _            | 815         | 861        | 989        |  |
|                               |                         |                               |                                 |                | Watts | _  | _          | _            | _            | 239         | 227        | 204        |  |
|                               |                         |                               |                                 |                | CFM   | 651 [307]                                  | 606 [286]  | 576 [272]    | 537 [253]    | 493 [233]   | —          | _          |  |
|                               |                         |                               |                                 | Low            | RPM   | 571  | 631        | 700          | 744          | 798         | _          | _          |  |
| 1817<br>with 12 kW            | High                    | 487/661 CFM                   | 10x6                            |                | Watts | 184  | 172        | 164          | 155          | 148         | _          |            |  |
| With 13 kW High [230/312 L/s] | 1/5 HP [149]<br>2 Speed |                               | CFM                             | _              | —     | —  |            | 655 [309]    | 600 [283]    | 549 [259]   |            |            |  |
|                               |                         | High                          | RPM                             | _              | —     | —  | _          | 840          | 886          | 1014        |            |            |  |
|                               |                         |                               |                                 |                | Watts | _  | —          | —            |              | 228         | 216        | 193        |  |
|                               |                         |                               |                                 |                | CFM   | 875 [413]                                  | 806 [380]  | 787 [371]    | 739 [349]    | 682 [322]   | —          | _          |  |
|                               |                         |                               |                                 | Low            | RPM   | 648  | 700        | 745          | 794          | 827         | —          |            |  |
| 2417                          | Llink                   | 647/888 CFM                   | 10x6<br>1/5 HP [149]            |                | Watts | 259  | 255        | 243          | 234          | 227         | _          |            |  |
| No Heater                     | High                    | [305/419 L/s]                 | 2 Speed                         |                | CFM   | _  | —          | _            |              | 897 [423]   | 851 [402]  | 765 [361]  |  |
|                               |                         |                               | 2 00000                         | High           | RPM   | _  | _          | _            | _            | 906         | 925        | 955        |  |
|                               |                         |                               |                                 |                | Watts | _  | _          | _            |              | 332         | 318        | 306        |  |
|                               |                         |                               |                                 |                | CFM   | 845 [399]                                  | 776 [366]  | 757 [357]    | 709 [335]    | 652 [308]   | —          | -          |  |
|                               |                         | 617/838 CFM<br>[291/395 L/s]  | 10x6<br>1/5 HP [149]<br>2 Speed | Low<br>High    | RPM   | 678  | 730        | 775          | 824          | 857         | _          | _          |  |
| 2417                          | Llink                   |                               |                                 |                | Watts | 250  | 246        | 234          | 225          | 218         | _          | _          |  |
| with 13 kW<br>Heater          | High                    |                               |                                 |                | CFM   | _  | —          | _            | _            | 847 [400]   | 801 [378]  | 715 [337]  |  |
|                               |                         |                               |                                 |                | RPM   | _  | —          | —            | _            | 931         | 950        | 980        |  |
|                               |                         |                               |                                 |                | Watts | _  | —          | —            | _            | 321         | 307        | 295        |  |
|                               |                         |                               |                                 |                | CFM   | 1038 [490]                                 | 1010 [477] | 976 [461]    | 925 [437]    | 883 [417]   | —          | _          |  |
|                               |                         |                               |                                 | Low            | RPM   | 721  | 771        | 799          | 848          | 880         | —          | _          |  |
| 3017                          | High                    | 864/1004 CFM                  | 10x8<br>1/4 HP [186]            |                | Watts | 325  | 314        | 303          | 290          | 286         | —          | _          |  |
| No Heater                     | підп                    | [408/474 L/s]                 | 2 Speed                         |                | CFM   | _  | —          | —            | _            | 1015 [479]  | 963 [454]  | 890 [420]  |  |
|                               |                         |                               |                                 | High           | RPM   | _  | —          | —            | _            | 928         | 955        | 974        |  |
|                               |                         |                               |                                 |                | Watts | _  | —          | —            | _            | 356         | 341        | 329        |  |
|                               |                         |                               |                                 |                | CFM   | 988 [466]                                  | 960 [453]  | 926 [437]    | 875 [413]    | 833 [393]   | —          | —          |  |
|                               |                         |                               |                                 | Low            | RPM   | 771  | 821        | 849          | 898          | 930         | —          | _          |  |
| 3017<br>with 18 kW            | High                    | 814/904 CFM                   | 10x8<br>1/4 HP [186]            |                | Watts | 305  | 294        | 283          | 270          | 266         | _          | _          |  |
| Heater                        | riigii                  | [384/427 L/s]                 | 2 Speed                         |                | CFM   | _  | _          | _            | _            | 915 [432]   | 863 [407]  | 790 [373]  |  |
| nealei                        |                         |                               | High                            | RPM            | _     | _  | _          | _            | 953          | 980         | 999        |            |  |
|                               |                         |                               |                                 |                | Watts | -  | _          | —            | _            | 326         | 311        | 299        |  |
|                               |                         |                               |                                 |                | CFM   | 1229 [580]                                 | 1201 [567] | 1170 [552]   | 1141 [538]   | 1104 [521]  | _          | _          |  |
|                               |                         |                               |                                 | Low            | RPM   | 788  | 833        | 872          | 909          | 951         | —          |            |  |
| 3617/<br>3621                 | High                    | 1104/1248 CFM                 | 10x8                            |                | Watts | 466  | 462        | 427          | 406          | 395         | —          | _          |  |
| No Heater                     | 240V                    | [521/589 L/s]                 | 1/3 HP [249]<br>2 Speed         |                | CFM   | _  | —          | —            |              | 1248 [589]  | 1194 [563] | 1133 [535] |  |
|                               |                         |                               |                                 | High           | RPM   | _  | —          | —            |              | 1008        | 1028       | 1042       |  |
|                               |                         |                               |                                 |                | Watts | _  | _          | _            | _            | 488         | 475        | 454        |  |

Notes: • All 208/240V PSC motors have voltage taps for 208 and 240 volts.
• All 208/240V PSC motors are shipped on high speed and 240 volts.
• All 115V PSC motors are shipped on high speed.
• If the application external static is less than 0.5" WC, adjust the motor speed to the low static speed as described below:
• Unplug the black motor wire off the relay on the control board and plug in the red motor wire.

Plug in the red motor wire.
Replace the cap on the black motor wire.
Voltage change (208/240V motors):

Move the orange lead to transformer 208V tap from 240V tap.

Replace the wire cap on 240V tap.

• Unplug the purple motor wire off the transformer and plug in the yellow motor wire. • Replace the cap on the purple motor wire.

All 480V PSC motors are shipped on high speed

. If the application external static is less than 0.5" WC, adjust the motor speed to the low static speed as described below for 3-ton through 4-ton air handlers.

. Unplug the black motor wire off the relay and remove the cap from

the red motor wire.

• Plug the red motor wire to the relay and connect the black motor

wire with the yellow motor wire.

• For 5-ton air handler, unplug the black motor wire off the relay and plug in the red motor wire, then cap the black motor wire. There is no yellow motor wire on 5-ton air handler.

WARNING: Do not connect red motor wire with yellow motor wire in any circumstance on 480V PSC motors. Connecting red motor wire with yellow motor wire will result in permanent motor damage.

• The above airflow table lists the airflow information for air handlers without heater and air handler with maximum heater allowed for each model.

• The following formula can be used to calculate the approximate airflow, if a smaller (N kW) than the maximum heater kit is installed. Approximate Airflow = Airflow without heater (Airflow without heater - Airflow with maximum heater) x (N kW/maximum heater kW)

# 240V Airflow Performance Data—FH\*\*TPS (PSC Motor)

| Model                        | Motor         | Manufacturer                  | Blower Size/                     |                |       | PSC CFM [L/s] Air Delivery/RPM/Watts—240 Volts |            |            |            |            |            |            |  |  |
|------------------------------|---------------|-------------------------------|----------------------------------|----------------|-------|--|------------|------------|------------|------------|------------|------------|--|--|
| No.                          | Speed<br>from | Recommended<br>Air-Flow Range | Motor<br>HP [W]                  | Motor<br>Speed |       | External Static Pressure—Inches W.C. [kPa]     |            |            |            |            |            |            |  |  |
| FH**TPS                      | Factory       | (Min/Max) CFM                 | # of Speed                       | Sheen          |       | 0.1 [.02]                                      | 0.2 [.05]  | 0.3 [.07]  | 0.4 [.10]  | 0.5 [.12]  | 0.6 [.15]  | 0.7 [.17]  |  |  |
|                              |               |                               | -                                |                | CFM   | 1179 [556]                                     | 1151 [543] | 1120 [529] | 1091 [515] | 1054 [497] | _          | _          |  |  |
| 0617/                        |               |                               |                                  | Low            | RPM   | 838  | 883        | 922        | 959        | 1001       | _          | _          |  |  |
| 3617/<br>3621                | High          | 1054/1148 CFM                 | 10x8                             |                | Watts | 446  | 442        | 407        | 386        | 375        | _          | _          |  |  |
| with 18 kW                   | 240V          | [497/542 L/s]                 | 1/3 HP [249]<br>2 Speed          |                | CFM   | _  | _          | _          | _          | 1148 [542] | 1094 [516] | 1033 [487] |  |  |
| Heater                       |               |                               |                                  | High           | RPM   |  | _          | _          | _          | 1033       | 1053       | 1067       |  |  |
|                              |               |                               |                                  |                | Watts |  | _          | _          | _          | 458        | 445        | 424        |  |  |
|                              |               |                               |                                  |                | CFM   | 1526 [720]                                     | 1474 [696] | 1427 [673] | 1307 [617] | 1241 [586] | —          | —          |  |  |
|                              |               |                               |                                  | Low            | RPM   | 834  | 870        | 902        | 948        | 968        | —          | —          |  |  |
| 4221                         | High          | 1241/1537 CFM                 | 10x10<br>1/2 HP [373]            |                | Watts | 560  | 549        | 535        | 476        | 462        | —          | —          |  |  |
| No Heater 240V [586/725 L/s] | 2 Speed       |                               | CFM                              |                | _     | _  | _          | 1537 [725] | 1418 [669] | 1334 [630] |            |            |  |  |
|                              |               | High                          | RPM                              | _              | —     | —  | _          | 1072       | 1077       | 1085       |            |            |  |  |
|                              |               |                               | Watts                            |                | _     | —  | _          | 860        | 835        | 820        |            |            |  |  |
|                              |               |                               |                                  |                | CFM   | 1456 [687]                                     | 1404 [663] | 1357 [640] | 1237 [584] | 1171 [553] | —          | —          |  |  |
|                              |               |                               |                                  | Low            | RPM   | 886  | 906        | 925        | 959        | 992        | —          | —          |  |  |
| 4221<br>with 20 kW           | High          | 1225/1500 CFM                 | 10x10                            |                | Watts | 542  | 524        | 505        | 468        | 431        | —          | —          |  |  |
| Heater                       | 240V          | 10V [553/6781/s] 1/2 HP [3/3  | 2 Speed                          |                | CFM   | _  | —          | —          | _          | 1437 [678] | 1318 [622] | 1234 [582] |  |  |
|                              |               |                               | 2 opour                          | High           | RPM   | _  | _          | —          | _          | 1080       | 1090       | 1105       |  |  |
|                              |               |                               |                                  | Watts          | _     | _  | —          | _          | 840        | 800        | 785        |            |  |  |
|                              |               |                               |                                  |                | CFM   | 1560 [736]                                     | 1550 [731] | 1543 [728] | 1510 [713] | 1455 [687] | —          | —          |  |  |
|                              |               |                               | 10x10<br>3/4 HP [559]<br>2 Speed | Low            | RPM   | 807  | 840        | 914        | 941        | 989        | —          | —          |  |  |
| 4821/<br>4824                | High          |                               |                                  |                | Watts | 601  | 589        | 553        | 541        | 507        | _          | _          |  |  |
| 4024<br>No Heater            | 240V          | [687/843 L/s]                 |                                  | High           | CFM   |  | _          | —          | _          | 1787 [843] | 1679 [792] | 1575 [743] |  |  |
|                              |               |                               |                                  |                | RPM   | _  | —          | —          | _          | 1089       | 1098       | 1110       |  |  |
|                              |               |                               |                                  |                | Watts | _  |            | —          | -          | 695        | 665        | 630        |  |  |
|                              |               |                               |                                  |                | CFM   | 1490 [703]                                     | 1480 [698] | 1473 [695] | 1440 [680] | 1385 [654] | _          | _          |  |  |
| 4821/                        |               |                               |                                  | Low            | RPM   | 857  | 897        | 937        | 974        | 1011       | _          | _          |  |  |
| 4824                         | High          | 1225/1500 CFM                 | 10x10<br>3/4 HP [559]            |                | Watts | 581  | 569        | 533        | 521        | 487        | _          | _          |  |  |
| with 25 kW                   | 240V          | [709/814 L/s]                 | 2 Speed                          |                | CFM   | _  | _          | —          | _          | 1687 [796] | 1579 [745] | 1475 [696] |  |  |
| Heater                       |               |                               |                                  | High           | RPM   |  |            | —          |            | 1095       | 1107       | 1120       |  |  |
|                              |               |                               |                                  |                | Watts |  |            | _          | 1          | 670        | 635        | 615        |  |  |
|                              |               |                               |                                  |                | CFM   | 1944 [917]                                     | 1912 [902] | 1860 [878] | 1813 [856] | 1766 [833] | —          | —          |  |  |
|                              |               |                               |                                  | Low            | RPM   | 764  | 803        | 838        | 865        | 889        | —          | —          |  |  |
| 6024                         | High          | 1766/1965 CFM                 | 11x11<br>3/4 HP [559]            |                | Watts | 779  | 763        | 747        | 729        | 708        | —          | —          |  |  |
| No Heater                    | 240V          | [833/927 L/s]                 | 2 Speed                          |                | CFM   |  |            | —          |            | 1965 [927] | 1908 [900] | 1854 [875] |  |  |
|                              |               |                               | -                                | High           | RPM   |  |            | —          |            | 943        | 967        | 977        |  |  |
|                              |               |                               |                                  |                | Watts |  |            | _          |            | 828        | 799        | 795        |  |  |
|                              |               |                               |                                  |                | CFM   | 1844 [870]                                     | 1812 [855] | 1760 [831] | 1713 [808] | 1666 [786] | —          | _          |  |  |
|                              |               |                               |                                  | Low            | RPM   | 839  | 865        | 890        | 913        | 935        | _          | —          |  |  |
| 6024<br>with 30 kW           | High          | 1225/1500 CFM                 | 11x11<br>3/4 HP (550)            |                | Watts | 745  | 729        | 713        | 696        | 678        | _          | _          |  |  |
| Heater                       | 240V          | [709/814 L/s]                 | 3/4 HP [559]<br>2 Speed          | High           | CFM   |  |            | _          |            | 1865 [880] | 1808 [853] | 1754 [828] |  |  |
|                              |               |                               |                                  |                | RPM   |  |            | _          | _          | 987        | 1001       | 1014       |  |  |
|                              |               |                               |                                  |                | Watts | _  | _          | —          | _          | 788        | 766        | 744        |  |  |

 Watts
 —
 —
 —
 —
 788

 Notes:
 • All 208/240V PSC motors have voltage taps for 208 and 240 volts.
 • All 208/240V PSC motors are shipped on high speed and 240 volts.
 • All 208/240V PSC motors are shipped on high speed and 240 volts.
 • If the application external static is less than 0.5" WC, adjust the motor speed to the low static speed as described below:
 • Unplug the black motor wire off the relay on the control board and plug in the red motor wire.
 • Replace the cap on the black motor wire.
 • Voltage change (208/240V motors):
 • Wore the orange lead to transformer 208V tap from 240V tap. Replace the wire cap on 240V tap.
 • Unplug the purple motor wire off the transformer and plug in the yellow motor wire.

 • Nove the orange lead to transformer 208V tap from 240V tap. Replace the wire cap on 240V tap.
 • Unplug the purple motor wire off the transformer and plug in the yellow motor wire.

 • Replace the cap on the purple motor wire.
 • Replace the cap on the purple motor wire.
 • Replace the cap on the purple motor wire.

 • The above airflow table lists the airflow information for air handlers without heater and air handler with maximum heater allowed for each model.
 • The following formula can be used to calculate the approximate airflow, if a smaller (N kW) than the maximum heater kit is installed. Approximate Airflow without heater - (Airflow without heater - Airflow with maximum heater) x (N kW/maximum heater kW)

# 208/240V Airflow Performance Data—FH\*\*TQS (Constant Torque Motor)

| Model           | _                      | Motor         | Blower Size/            |                |            |            | C  | FM [L/s] Air D | elivery/RPM/\ | Vatts (No Filte | r)         |            |  |
|-----------------|------------------------|---------------|-------------------------|----------------|------------|------------|--|----------------|---------------|-----------------|------------|------------|--|
| No.             | Tonnage<br>Application | Speed<br>From | Motor HP [W]            | Motor<br>Speed |            |            | External Static Pressure—Inches W.C. [kPa] |                |               |                 |            |            |  |
| FH**TQS         |                        | Factory       | # of Speed              |                |            | 0.1 [.02]  | 0.2 [.05]                                  | 0.3 [.07]      | 0.4 [.10]     | 0.5 [.12]       | 0.6 [.15]  | 0.7 [.17]  |  |
|                 |                        |               |                         |                | CFM        | 1473 [695] | 1442 [681]                                 | 1401 [661]     | 1373 [648]    | 1337 [631]      | _          |            |  |
|                 |                        |               |                         | 2              | RPM        | 781        | 825  | 867            | 905           | 949             | _          | _          |  |
| 4221            | 21 3.5 Ton 5           | 10x10         |                         | Watts          | 257        | 271        | 303  | 307            | 315           | _               | _          |            |  |
| No Heater       | 3.5 Ton                |               | 3/4 HP [559]<br>5 Speed |                | CFM        | —          | _  | —              | _             | 1447 [683]      | 1433 [676] | 1402 [662] |  |
|                 |                        |               |                         | 3              | RPM        | —          | _  | —              | _             | 987             | 1034       | 1065       |  |
|                 |                        |               |                         |                | Watts      | —          | —  | —              | —             | 394             | 406        | 405        |  |
|                 |                        | CFM           | 1433 [676]              | 1402 [662]     | 1361 [642] | 1333 [629] | 1297 [612]                                 | —              |               |                 |            |            |  |
| 4221            |                        |               | 10x10<br>3/4 HP [559]   |                | 2          | RPM        | 831  | 875            | 919           | 954             | 989        | —          |  |
| with            | 3.5 Ton                | 5             |                         |                | Watts      | 277        | 295  | 313            | 319           | 325             | —          | _          |  |
| 20 kW<br>Heater | 5.5 1011               | 5             | 5 Speed                 | 3              | CFM        | _          | —  | _              | —             | 1333 [629]      | 1300 [613] | 1267 [598] |  |
| Tioator         |                        |               |                         |                | RPM        | —          | —  | —              | —             | 1011            | 1046       | 1080       |  |
|                 |                        |               |                         |                | Watts      | —          | —  | —              | —             | 350             | 364        | 377        |  |
|                 |                        |               |                         |                | CFM        | 1665 [786] | 1631 [770]                                 | 1601 [756]     | 1572 [742]    | 1535 [724]      |            |            |  |
|                 |                        |               |                         | 4              | RPM        | 853        | 893  | 934            | 968           | 1015            | —          | _          |  |
| 4221            | 4 Ton                  | 5             | 10x10<br>3/4 HP [559]   |                | Watts      | 351        | 387  | 401            | 406           | 422             | —          | _          |  |
| No Heater       | 4 1011                 | 5             | 5 Speed                 |                | CFM        | —          | —  | —              | —             | 1654 [781]      | 1624 [766] | 1563 [738] |  |
|                 |                        |               |                         | 5              | RPM        | —          | —  | —              | —             | 1036            | 1078       | 1095       |  |
|                 |                        |               |                         |                | Watts      | —          | —  | —              | —             | 500             | 513        | 523        |  |
|                 |                        |               |                         |                | CFM        | 1625 [767] | 1591 [751]                                 | 1561 [737]     | 1532 [723]    | 1495 [706]      | _          | _          |  |
| 4001            |                        |               |                         | 4              | RPM        | 894        | 932  | 970            | 1020          | 1052            | —          | _          |  |
| 4221<br>with    | 5                      | 10x10         |                         | Watts          | 389        | 400        | 410  | 430            | 450           | _               | _          |            |  |
| 25 kW<br>Heater | 4 Ton                  | 5             | 3/4 HP [559]<br>5 Speed |                | CFM        | _          | _  | _              |               | 1614 [762]      | 1584 [748] | 1523 [719] |  |
| ITEALEI         |                        |               |                         | 5              | RPM        | _          | _  | _              |               | 1085            | 1090       | 1105       |  |
|                 |                        |               |                         |                | Watts      | _          | _  | _              | _             | 514             | 520        | 530        |  |

Notes: • Constant Torque motor speed changes.

• All Constant Torque motors have 5 speed tabs.

Speed tab 1 is for continuous fan.
Speed tab 2 (low static) and

• Speed tab 3 (high static) are for lower tonnage.

Speed tab 4 (low static) and
Speed tab 5 (high static) are for higher tonnage.
Constant Torque air handlers are always shipped from factory at Speed tab 5, except for -4824, which is set at Speed tab 3. For instance, (-)H1T-HM2417JA is always shipped from factory at 050 (Speed tab 5). To change to 1.5-ton airflow, move the blue wire to Speed tab 2 or 3 on the Constant Torque motor.
The low static Speed tab 2 (lower tonnage) and 4 (higher tonnage) are used for external static below 0.5" WC. The high static Speed tab 3 (lower tonnage) and 5 (higher tonnage) are used for external static exceeding 0.5" WC. Move the blue wire to the appropriate
The airflow for continuous fan (Speed tab 1) is always set at 50% of the Speed tab 4.

• The above airflow table lists the airflow information for air handlers without heater and air handler with maximum heater allowed for each model.

• The following formula can be used to calculate the approximate airflow, if a smaller (N kW) than the maximum heater kit is installed.

Approximate Airflow = Airflow without heater - (Airflow without heater - Airflow with maximum heater) x (N kW/maximum heater)

# Electrical Data – Blower Motor Only – No Electric Heat

| Model<br>FH**TPS | Voltage | Application<br>Phase* | Hertz | HP [W]    | RPM  | Speeds | Circuit<br>Amps. | Minimum<br>Circuit<br>Ampacity | Maximum<br>Circuit<br>Protector |
|------------------|---------|-----------------------|-------|-----------|------|--------|------------------|--------------------------------|---------------------------------|
| 1817             |         |                       |       | 1/5 [149] | 1075 | 2      | 2.3              | 3.0                            | 15                              |
| 2417             |         |                       |       | 1/5 [149] | 1075 | 2      | 3.8              | 5.0                            | 15                              |
| 3017             | 115     | 1                     | 60    | 1/4 [186] | 1075 | 2      | 4.7              | 6.0                            | 15                              |
| 3617             | 115     | 1                     | 00    | 1/3 [249] | 1075 | 2      | 6.1              | 8.0                            | 15                              |
| 4221             | ]       |                       |       | 1/2 [373] | 1075 | 2      | 7.9              | 10.0                           | 15                              |
| 4821             |         |                       |       | 3/4 [559] | 1075 | 2      | 8.4              | 11.0                           | 15                              |
| 1817             |         |                       |       | 1/5 [149] | 1075 | 2      | 1.7              | 3.0                            | 15                              |
| 2417             | 1       |                       |       | 1/5 [149] | 1075 | 2      | 1.7              | 3.0                            | 15                              |
| 3017             | 208/240 | 1&3                   | 60    | 1/4 [186] | 1075 | 2      | 2.5              | 4.0                            | 15                              |
| 3617/3621        | 200/240 | 103                   | 00    | 1/3 [249] | 1075 | 2      | 2.5              | 4.0                            | 15                              |
| 4221             |         |                       |       | 1/2 [373] | 1075 | 2      | 5.2              | 7.0                            | 15                              |
| 4821/4824        | ]       |                       |       | 3/4 [559] | 1075 | 2      | 5.2              | 7.0                            | 15                              |
| 6024             | 208/240 | 3                     | 60    | 3/4 [559] | 1075 | 2      | 5.2              | 7.0                            | 15                              |
| 3617             |         |                       |       | 1/3 [249] | 1075 | 2      | 1.4              | 2.0                            | 15                              |
| 4221             | 480     | 3                     | 60    | 1/3 [249] | 1075 | 2      | 2.1              | 3.0                            | 15                              |
| 4821/4824        | 1       |                       |       | 3/4 [559] | 1075 | 2      | 2.2              | 3.0                            | 15                              |
| 6024             | 480     | 3                     | 60    | 3/4 [559] | 1075 | 2      | 2.2              | 3.0                            | 15                              |

\* Blower motors are all single phase motors.

# Blower Motor Data – FH\*\*TQS

| Model FH**TQS | Voltage | Phase* | Hertz | HP        | RPM      | Speeds | Motor Amps | Minimum<br>Circuit<br>Ampacity | Maximum<br>Overcurrent<br>Protection |
|---------------|---------|--------|-------|-----------|----------|--------|------------|--------------------------------|--------------------------------------|
| 4221          | 208/240 | 1 & 3  | 60    | 3/4 [559] | 300-1100 | 4      | 4.0        | 5                              | 15                                   |

# Electrical Data – With Electric Heat

Installation of the U.L. Listed original equipment manufacturer provided heater kits listed in the following table is recommended for all auxiliary heating requirements.

| Air Handler<br>Model<br>FH**TPS | Heater Model No. | Heater kW<br>(208/240V)<br>(480V) | PH/HZ | No. Elements<br>kW Per | Type Supply Circuit<br>Single Circuit<br>Multiple Circuit | Heater<br>Amps. | Motor<br>Amps. | Minimum<br>Circuit<br>Ampacity | Maximum<br>Overcurrent<br>Protection |
|---------------------------------|------------------|-----------------------------------|-------|------------------------|---|-----------------|----------------|--------------------------------|--------------------------------------|
|                                 | RXBH-17?03J      | 2.25/3.0                          | 1/60  | 1 - 3.0                | SINGLE  | 10.8/12.5       | 1.7            | 16/18                          | 20/20                                |
|                                 | RXBH-1724?03J    | 2.25/3.0                          | 1/60  | 1 - 3.0                | SINGLE  | 10.8/12.5       | 1.7            | 16/18                          | 20/20                                |
|                                 | RXBH-1724?05J    | 3.6/4.8                           | 1/60  | 1 - 4.8                | SINGLE  | 17.3/20.0       | 1.7            | 24/28                          | 25/30                                |
|                                 | RXBH-1724?07J    | 5.4/7.2                           | 1/60  | 2 - 3.6                | SINGLE  | 26.0/30.0       | 1.7            | 35/40                          | 35/40                                |
|                                 | RXBH-1724?10J    | 7.2/9.6                           | 1/60  | 2 - 4.8                | SINGLE  | 34.6/40.0       | 1.7            | 46/53                          | 50/60                                |
| 1817<br>2417                    | RXBH-1724A13J    | 9.4/12.5                          | 1/60  | 3 - 4.17               | SINGLE  | 45.1/52.1       | 1.7            | 59/68                          | 60/70                                |
| 2417                            |                  | 3.1/4.2                           | 1/60  | 1 - 4.17               | MULTIPLE CKT 1  | 15.0/17.4       | 1.7            | 21/24                          | 25/25                                |
|                                 | RXBH-1724A13J    | 6.3/8.3                           | 1/60  | 2 - 4.17               | MULTIPLE CKT 2  | 30.1/34.7       | 0.0            | 38/44                          | 40/45                                |
|                                 | RXBH-1724A07C    | 5.4/7.2                           | 3/60  | 3 - 2.4                | SINGLE  | 15.0/17.3       | 1.7            | 21/24                          | 25/25                                |
|                                 | RXBH-1724A10C    | 7.2/9.6                           | 3/60  | 3 - 3.2                | SINGLE  | 20.0/23.1       | 1.7            | 28/31                          | 30/35                                |
|                                 | RXBH-1724A13C    | 9.4/12.5                          | 3/60  | 3 - 4.17               | SINGLE  | 26.1/30.1       | 1.7            | 35/40                          | 35/40                                |
| 3017/3617                       | RXBH-17?03J      | 2.25/3.0                          | 1/60  | 1 - 3.0                | SINGLE  | 10.8/12.5       | 2.5            | 17/19                          | 20/20                                |
|                                 | RXBH-1724?03J    | 2.25/3.0                          | 1/60  | 1 - 3.0                | SINGLE  | 10.8/12.5       | 2.5            | 17/19                          | 20/20                                |
|                                 | RXBH-1724?05J    | 3.6/4.8                           | 1/60  | 1 - 4.8                | SINGLE  | 17.3/20.0       | 2.5            | 25/29                          | 25/30                                |
|                                 | RXBH-1724?07J    | 5.4/7.2                           | 1/60  | 2 - 3.6                | SINGLE  | 26.0/30.0       | 2.5            | 36/41                          | 40/45                                |
|                                 | RXBH-1724?10J    | 7.2/9.6                           | 1/60  | 2 - 4.8                | SINGLE  | 34.6/40.0       | 2.5            | 47/54                          | 50/60                                |
|                                 | RXBH-1724A13J    | 9.4/12.5                          | 1/60  | 3 - 4.17               | SINGLE  | 45.1/52.1       | 2.5            | 60/69                          | 60/70                                |
|                                 |                  | 3.1/4.2                           | 1/60  | 1 - 4.17               | MULTIPLE CKT 1  | 15.0/17.4       | 2.5            | 22/25                          | 25/25                                |
|                                 | RXBH-1724A13J    | 6.3/8.3                           | 1/60  | 2 - 4.17               | MULTIPLE CKT 2  | 30.1/34.7       | 0.0            | 38/44                          | 40/45                                |
|                                 | RXBH-1724A15J    | 10.8/14.4                         | 1/60  | 3 - 4.8                | SINGLE  | 51.9/60.0       | 2.5            | 68/79                          | 70/80                                |
| 3017                            |                  | 3.6/4.8                           | 1/60  | 1 - 4.8                | MULTIPLE CKT 1  | 17.3/20.0       | 2.5            | 25/29                          | 25/30                                |
| 3617<br>3621                    | RXBH-1724A15J    | 7.2/9.6                           | 1/60  | 2 - 4.8                | MULTIPLE CKT 2  | 34.6/40.0       | 0.0            | 44/50                          | 45/50                                |
| 0021                            | RXBH-1724A18J    | 12.8/17.0                         | 1/60  | 3 - 5.68               | SINGLE  | 61.6/70.8       | 2.5            | 81/92                          | 90/100                               |
|                                 |                  | 4.3/5.7                           | 1/60  | 1 - 5.68               | MULTIPLE CKT 1  | 20.5/23.6       | 2.5            | 29/33                          | 30/35                                |
|                                 | RXBH-1724A18J    | 8.5/11.3                          | 1/60  | 2 - 5.68               | MULTIPLE CKT 2  | 41.1/47.2       | 0.0            | 52/59                          | 60/60                                |
|                                 | RXBH-1724A07C    | 5.4/7.2                           | 3/60  | 3 - 2.4                | SINGLE  | 15.0/17.3       | 2.5            | 22/25                          | 25/25                                |
|                                 | RXBH-1724A10C    | 7.2/9.6                           | 3/60  | 3 - 3.2                | SINGLE  | 20.0/23.1       | 2.5            | 29/32                          | 30/35                                |
|                                 | RXBH-1724A13C    | 9.4/12.5                          | 3/60  | 3 - 4.17               | SINGLE  | 26.1/30.1       | 2.5            | 36/41                          | 40/45                                |
|                                 | RXBH-1724A15C    | 10.8/14.4                         | 3/60  | 3 - 4.8                | SINGLE  | 30.0/34.6       | 2.5            | 41/47                          | 45/50                                |
|                                 | RXBH-1724A18C    | 12.8/17.0                         | 3/60  | 3 - 5.68               | SINGLE  | 35.5/41.0       | 2.5            | 48/55                          | 50/60                                |
|                                 | RXBH-17A07D      | 7.2                               | 3/60  | 3 - 2.4                | SINGLE  | 8.7             | 1.4            | 13                             | 15                                   |
| 3017                            | RXBH-17A10D      | 9.6                               | 3/60  | 3 - 3.2                | SINGLE  | 11.6            | 1.4            | 17                             | 20                                   |
| 3617                            | RXBH-17A15D      | 14.4                              | 3/60  | 3 - 4.8                | SINGLE  | 17.3            | 1.4            | 24                             | 25                                   |
|                                 | RXBH-17A18D      | 17.0                              | 3/60  | 3 - 5.68               | SINGLE  | 20.4            | 1.4            | 28                             | 30                                   |
|                                 | RXBH-24A07D      | 7.2                               | 3/60  | 3 - 2.4                | SINGLE  | 8.7             | 1.4            | 13                             | 15                                   |
|                                 | RXBH-24A10D      | 9.6                               | 3/60  | 3 - 3.2                | SINGLE  | 11.6            | 1.4            | 17                             | 20                                   |
| 3621                            | RXBH-24A15D      | 14.4                              | 3/60  | 3 - 4.8                | SINGLE  | 17.3            | 1.4            | 24                             | 25                                   |
| ſ                               | RXBH-24A18D      | 17.0                              | 3/60  | 6 - 2.84               | SINGLE  | 20.4            | 1.4            | 28                             | 30                                   |

• ? Heater Kit Connection Type A = Breaker B = Terminal Block C = Pullout Disconnect

① D Voltage = 480 Volts.

\*Values only. No single point kit available.

NOTES:

Electric heater BTUH - (heater watts + motor watts) x 3.414 (see airflow table for motor watts.)
 Supply circuit protective devices may be fuses or "HACR" type circuit breakers.

• If non-standard fuse size is specified, use next size larger standard fuse size.

• Largest motor load is included in single circuit or circuit 1 of multiple circuits.

· Heater loads are balanced on 3 phase models with 3 or 6 heaters only.

• No electrical heating elements are permitted to be used with A voltage (115V) air handler.

• J voltage (208/240V) single phase air handler is designed to be used with single or three phase 208/240V volt electric heaters. In the case of connecting 3 phase power to air handler terminal block without the heater, bring only two leads to terminal block, cap, insulate and fully secure the third lead. • Do not use 480V electrical heaters on 208/240V air handlers.

• If the kit is listed under both single and multiple circuits, the kit is shipped from factory as multiple circuits. For single phase application, Jumper bar kit RXBJ-A21 and RXBJ-A31 can be used to convert multiple circuits to a single supply circuit. Refer to Accessory Section for details.

# Electrical Data - With Electric Heat (Cont.)

Installation of the U.L. Listed original equipment manufacturer provided heater kits listed in the following table is recommended for all auxiliary heating requirements.

| Air Handler<br>Model<br>FH**TPS | Heater Model No.            | Heater kW<br>(208/240V)<br>(480V) | PH/HZ | No. Elements<br>kW Per | Type Supply Circuit<br>Single Circuit<br>Multiple Circuit | Heater<br>Amps. | Motor<br>Amps. | Minimum<br>Circuit<br>Ampacity | Maximum<br>Overcurrent<br>Protection |
|---------------------------------|-----------------------------|-----------------------------------|-------|------------------------|---|-----------------|----------------|--------------------------------|--------------------------------------|
|                                 | RXBH-1724?05J               | 3.6/4.8                           | 1/60  | 1 - 4.8                | SINGLE  | 17.3/20.0       | 5.2            | 29/32                          | 30/35                                |
|                                 | RXBH-1724?07J               | 5.4/7.2                           | 1/60  | 2 - 3.6                | SINGLE  | 26.0/30.0       | 5.2            | 39/44                          | 40/45                                |
|                                 | RXBH-1724?10J               | 7.2/9.6                           | 1/60  | 2 - 4.8                | SINGLE  | 34.6/40.0       | 5.2            | 50/57                          | 50/60                                |
|                                 | RXBH-1724A15J               | 10.8/14.4                         | 1/60  | 3 - 4.8                | SINGLE  | 51.9/60.0       | 5.2            | 72/82                          | 80/90                                |
|                                 | RXBH-1724A15J               | 3.6/4.8                           | 1/60  | 1 - 4.8                | MULTIPLE CKT 1  | 17.3/20.0       | 5.2            | 29/32                          | 30/35                                |
|                                 | NADH-1724A10J               | 7.2/9.6                           | 1/60  | 2 - 4.8                | MULTIPLE CKT 2  | 34.6/40.0       | 0.0            | 44/50                          | 45/50                                |
|                                 | RXBH-1724A18J               | 12.8/17.0                         | 1/60  | 3 - 5.68               | SINGLE  | 61.6/70.8       | 5.2            | 84/95                          | 90/100                               |
|                                 | RXBH-1724A18J               | 4.3/5.7                           | 1/60  | 1 - 5.68               | MULTIPLE CKT 1  | 20.5/23.6       | 5.2            | 33/36                          | 35/40                                |
|                                 | KABH-1724A18J               | 8.5/11.3                          | 1/60  | 2 - 5.68               | MULTIPLE CKT 2  | 41.1/47.2       | 0.0            | 52/59                          | 60/60                                |
|                                 | RXBH-24A20J                 | 14.4/19.2                         | 1/60  | 4 - 4.8                | SINGLE  | 69.2/80.0       | 5.2            | 93/107                         | 100/110                              |
|                                 |                             | 7.2/9.6                           | 1/60  | 2 - 4.8                | MULTIPLE CKT 1  | 34.6/40.0       | 5.2            | 50/57                          | 50/60                                |
|                                 | RXBH-24A20J                 | 7.2/9.6                           | 1/60  | 2 - 4.8                | MULTIPLE CKT 2  | 34.6/40.0       | 0.0            | 44/50                          | 45/50                                |
|                                 | RXBH-24A25J                 | 18.0/24.0                         | 1/60  | 6 - 4.0                | SINGLE  | 86.4/99.9       | 5.2            | 115/132                        | 125/150                              |
|                                 |                             | 6.0/8.0                           | 1/60  | 2 - 4.0                | MULTIPLE CKT 1  | 28.8/33.3       | 5.2            | 43/49                          | 45/50                                |
|                                 | RXBH-24A25J<br>(4-TON ONLY) | 6.0/8.0                           | 1/60  | 2 - 4.0                | MULTIPLE CKT 2  | 28.8/33.3       | 0.0            | 36/42                          | 40/45                                |
| 4221                            |                             | 6.0/8.0                           | 1/60  | 2 - 4.0                | MULTIPLE CKT 3  | 28.8/33.3       | 0.0            | 36/42                          | 40/45                                |
| 4821                            | RXBH-1724A07C               | 5.4/7.2                           | 3/60  | 3 - 2.4                | SINGLE  | 15.0/17.3       | 5.2            | 26/29                          | 30/30                                |
| 4824                            | RXBH-1724A10C               | 7.2/9.6                           | 3/60  | 3 - 3.2                | SINGLE  | 20.0/23.1       | 5.2            | 32/36                          | 35/40                                |
|                                 | RXBH-1724A15C               | 10.8/14.4                         | 3/60  | 3 - 4.8                | SINGLE  | 30.0/34.6       | 5.2            | 44/50                          | 45/50                                |
|                                 | RXBH-1724A18C               | 12.8/17.0                         | 3/60  | 3 - 5.68               | SINGLE  | 35.6/41.0       | 5.2            | 51/58                          | 60/60                                |
|                                 | RXBH-24A20C*                | 14.4/19.2                         | 3/60  | 6 - 3.2                | SINGLE  | 40.0/46.2       | 5.2            | 57/65                          | 60/70                                |
|                                 |                             | 7.2/9.6                           | 3/60  | 3 - 3.2                | MULTIPLE CKT 1  | 20.0/23.1       | 5.2            | 32/36                          | 35/40                                |
|                                 | RXBH-24A20C                 | 7.2/9.6                           | 3/60  | 3 - 3.2                | MULTIPLE CKT 2  | 20.0/23.1       | 0.0            | 25/29                          | 25/30                                |
|                                 | RXBH-24A25C*                | 18.0/24.0                         | 3/60  | 6 - 4.0                | SINGLE  | 50.0/57.8       | 5.2            | 69/79                          | 70/80                                |
|                                 | RXBH-24A25C                 | 9.0/12.0                          | 3/60  | 3 - 4.0                | MULTIPLE CKT 1  | 25.0/28.9       | 5.2            | 38/43                          | 40/45                                |
|                                 | (4-TON ONLY)                | 9.0/12.0                          | 3/60  | 3 - 4.0                | MULTIPLE CKT 2  | 25.0/28.9       | 0.0            | 32/37                          | 35/40                                |
|                                 | RXBH-24A07D                 | 7.2                               | 3/60  | 3 - 2.4                | SINGLE  | 8.7             | 2.2            | 14                             | 15                                   |
|                                 | RXBH-24A10D                 | 9.6                               | 3/60  | 3 - 3.2                | SINGLE  | 11.6            | 2.2            | 18                             | 20                                   |
|                                 | RXBH-24A15D                 | 14.4                              | 3/60  | 3 - 4.8                | SINGLE  | 17.3            | 2.2            | 25                             | 25                                   |
|                                 | RXBH-24A18D                 | 17.0                              | 3/60  | 6 - 2.84               | SINGLE  | 20.4            | 2.2            | 29                             | 30                                   |
|                                 | RXBH-24A20D                 | 19.2                              | 3/60  | 6 - 3.2                | SINGLE  | 23.2            | 2.2            | 32                             | 35                                   |
|                                 | RXBH-24A25D<br>(4-TON ONLY) | 24.0                              | 3/60  | 6 - 4.0                | SINGLE  | 28.8            | 2.2            | 39                             | 40                                   |

 $\bullet$  ? Heater Kit Connection Type A = Breaker B = Terminal Block C = Pullout Disconnect D Voltage = 480 Volts.

\*Values only. No single point kit available.

NOTES:

• Electric heater BTUH - (heater watts + motor watts) x 3.414 (see airflow table for motor watts.)

• Supply circuit protective devices may be fuses or "HACR" type circuit breakers.

• If non-standard fuse size is specified, use next size larger standard fuse size.

• Largest motor load is included in single circuit or circuit 1 of multiple circuits.

Heater loads are balanced on 3 phase models with 3 or 6 heaters only.
No electrical heating elements are permitted to be used with A voltage (115V) air handler.

J voltage (208/240V) single phase air handler is designed to be used with single or three phase 208/240V volt electric heaters. In the case of connecting 3 phase power to air handler terminal block without the heater, bring only two leads to terminal block, cap, insulate and fully secure the third lead.
 Do not use 480V electrical heaters on 208/240V air handlers.

 If the kit is listed under both single and multiple circuits, the kit is shipped from factory as multiple circuits. For single phase application, Jumper bar kit RXBJ-A21 and RXBJ-A31 can be used to convert multiple circuits to a single supply circuit. Refer to Accessory Section for details.

# Electrical Data - With Electric Heat (Cont.)

Installation of the U.L. Listed original equipment manufacturer provided heater kits listed in the following table is recommended for all auxiliary heating requirements.

| Air Handler<br>Model<br>FH**TPS | Heater Model No. | Heater kW<br>(208/240V)<br>(480V) | PH/HZ | No. Elements<br>kW Per | Type Supply Circuit<br>Single Circuit<br>Multiple Circuit | Heater<br>Amps. | Motor<br>Amps. | Minimum<br>Circuit<br>Ampacity | Maximum<br>Overcurrent<br>Protection |
|---------------------------------|------------------|-----------------------------------|-------|------------------------|---|-----------------|----------------|--------------------------------|--------------------------------------|
|                                 | RXBH-1724?05J    | 3.6/4.8                           | 1/60  | 1 - 4.8                | SINGLE  | 17.3/20.0       | 5.2            | 29/32                          | 30/35                                |
|                                 | RXBH-1724?07J    | 5.4/7.2                           | 1/60  | 2 - 3.6                | SINGLE  | 26.0/30.0       | 5.2            | 39/44                          | 40/45                                |
|                                 | RXBH-1724?10J    | 7.2/9.6                           | 1/60  | 2 - 4.8                | SINGLE  | 34.6/40.0       | 5.2            | 50/57                          | 50/60                                |
|                                 | RXBH-1724A15J    | 10.8/14.4                         | 1/60  | 3 - 4.8                | SINGLE  | 51.9/60.0       | 5.2            | 72/82                          | 80/90                                |
|                                 | RXBH-1724A15J    | 3.6/4.8                           | 1/60  | 1 - 4.8                | MULTIPLE CKT 1  | 17.3/20.0       | 5.2            | 29/32                          | 30/35                                |
|                                 | NADH-1724A10J    | 7.2/9.6                           | 1/60  | 2 - 4.8                | MULTIPLE CKT 2  | 34.6/40.0       | 0.0            | 44/50                          | 45/50                                |
|                                 | RXBH-1724A18J    | 12.8/17.0                         | 1/60  | 3 - 5.68               | SINGLE  | 61.6/70.8       | 5.2            | 84/95                          | 90/100                               |
|                                 |                  | 4.3/5.7                           | 1/60  | 1 - 5.68               | MULTIPLE CKT 1  | 20.5/23.6       | 5.2            | 33/36                          | 35/40                                |
|                                 | RXBH-1724A18J    | 8.5/11.3                          | 1/60  | 2 - 5.68               | MULTIPLE CKT 2  | 41.1/47.2       | 0.0            | 52/59                          | 60/60                                |
| 0004                            | RXBH-24A20J      | 14.4/19.2                         | 1/60  | 4 - 4.8                | SINGLE  | 69.2/80.0       | 5.2            | 93/107                         | 100/110                              |
| 6024                            |                  | 7.2/9.6                           | 1/60  | 2 - 4.8                | MULTIPLE CKT 1  | 34.6/40.0       | 5.2            | 50/57                          | 50/60                                |
|                                 | RXBH-24A20J      | 7.2/9.6                           | 1/60  | 2 - 4.8                | MULTIPLE CKT 2  | 34.6/40.0       | 0.0            | 44/50                          | 45/50                                |
|                                 | RXBH-24A25J      | 18.0/24.0                         | 1/60  | 6 - 4.0                | SINGLE  | 86.4/99.9       | 5.2            | 115/132                        | 125/150                              |
|                                 |                  | 6.0/8.0                           | 1/60  | 2 - 4.0                | MULTIPLE CKT 1  | 28.8/33.3       | 5.2            | 43/49                          | 45/50                                |
|                                 | RXBH-24A25J      | 6.0/8.0                           | 1/60  | 2 - 4.0                | MULTIPLE CKT 2  | 28.8/33.3       | 0.0            | 36/42                          | 40/45                                |
|                                 |                  | 6.0/8.0                           | 1/60  | 2 - 4.0                | MULTIPLE CKT 3  | 28.8/33.3       | 0.0            | 36/42                          | 40/45                                |
|                                 | RXBH-24A30J      | 21.6/28.8                         | 1/60  | 6 - 4.8                | SINGLE  | 103.8/120.0     | 5.2            | 137/157                        | 150/175                              |
|                                 |                  | 7.2/9.6                           | 1/60  | 2 - 4.8                | MULTIPLE CKT 1  | 34.6/40.0       | 5.2            | 50/57                          | 50/60                                |
|                                 | RXBH-24A30J      | 7.2/9.6                           | 1/60  | 2 - 4.8                | MULTIPLE CKT 2  | 34.6/40.0       | 0.0            | 44/50                          | 45/50                                |
|                                 |                  | 7.2/9.6                           | 1/60  | 2 - 4.8                | MULTIPLE CKT 3  | 34.6/40.0       | 0.0            | 44/50                          | 45/50                                |

| Air Handler<br>Model<br>FH**TQS | Heater Model No. | Heater kW<br>(208/240V)<br>(480V) | PH/HZ | No. Elements<br>kW Per | Type Supply Circuit<br>Single Circuit<br>Multiple Circuit | Heater<br>Amps. | Motor<br>Amps. | Minimum<br>Circuit<br>Ampacity | Maximum<br>Overcurrent<br>Protection |
|---------------------------------|------------------|-----------------------------------|-------|------------------------|---|-----------------|----------------|--------------------------------|--------------------------------------|
|                                 | RXBH-1724?05J    | 3.6/4.8                           | 1/60  | 1-4.8                  | SINGLE  | 17.3/20.0       | 4.0            | 27/30                          | 30/30                                |
|                                 | RXBH-1724?07J    | 5.4/7.2                           | 1/60  | 2-3.6                  | SINGLE  | 26.0/30.0       | 4.0            | 38/43                          | 40/45                                |
|                                 | RXBH-1724?10J    | 7.2/9.6                           | 1/60  | 2-4.8                  | SINGLE  | 34.6/40.0       | 4.0            | 49/55                          | 50/60                                |
|                                 | RXBH-1724A15J    | 10.8/14.4                         | 1/60  | 3-4.8                  | SINGLE  | 51.9/60.0       | 4.0            | 70/80                          | 70/80                                |
|                                 |                  | 3.6/4.8                           | 1/60  | 1-4.8                  | MULTIPLE CKT 1  | 17.3/20.0       | 4.0            | 27/30                          | 30/30                                |
|                                 | RXBH-1724A15J    | 7.2/9.6                           | 1/60  | 2-4.8                  | MULTIPLE CKT 2  | 34.6/40.0       | 0.0            | 44/50                          | 45/50                                |
|                                 | RXBH-1724A18J    | 12.8/17.0                         | 1/60  | 3-5.68                 | SINGLE  | 61.6/70.8       | 4.0            | 82/94                          | 90/100                               |
| 4221                            | RXBJ-1724A18J    | 4.3/5.7                           | 1/60  | 1-5.68                 | MULTIPLE CKT 1  | 20.5/23.6       | 4.0            | 31/35                          | 30/35                                |
| 4221                            | NADJ-1724A10J    | 8.5/11.3                          | 1/60  | 2-5.68                 | MULTIPLE CKT 2  | 41.1/47.2       | 0.0            | 52/59                          | 60/60                                |
|                                 | RXBH-24A20J      | 14.4/19.2                         | 1/60  | 4-4.8                  | SINGLE  | 69.2/80         | 4.0            | 92/105                         | 100/110                              |
|                                 |                  | 7.2/9.6                           | 1/60  | 2-4.8                  | MULTIPLE CKT 1  | 34.6/40.0       | 4.0            | 49/55                          | 50/60                                |
|                                 | RXBH-24A20J      | 7.2/9.6                           | 1/60  | 2-4.8                  | MULTIPLE CKT 2  | 34.6/40.0       | 0.0            | 44/50                          | 45/50                                |
|                                 | RXBH-24A25J      | 18.0/24.0                         | 1/60  | 6-4.0                  | SINGLE  | 86.4/99.9       | 4.0            | 113/130                        | 125/150                              |
|                                 |                  | 6.0/8.0                           | 1/60  | 2-4.0                  | MULTIPLE CKT 1  | 28.8/33.3       | 4.0            | 41/47                          | 45/50                                |
|                                 | RXBH-24A25J      | 6.0/8.0                           | 1/60  | 2-4.0                  | MULTIPLE CKT 2  | 28.8/33.3       | 0.0            | 36/42                          | 40/45                                |
|                                 |                  | 6.0/8.0                           | 1/60  | 2-4.0                  | MULTIPLE CKT 3  | 28.8/33.3       | 0.0            | 36/42                          | 40/45                                |

• ? Heater Kit Connection Type A = Breaker B = Terminal Block C = Pullout Disconnect D Voltage = 480 Volts.

\*Values only. No single point kit available.

NOTES:

• Electric heater BTUH - (heater watts + motor watts) x 3.414 (see airflow table for motor watts.)

Supply circuit protective devices may be fuses or "HACR" type circuit breakers.

• If non-standard fuse size is specified, use next size larger standard fuse size.

· Largest motor load is included in single circuit or circuit 1 of multiple circuits.

• Heater loads are balanced on 3 phase models with 3 or 6 heaters only.

• No electrical heating elements are permitted to be used with A voltage (115V) air handler.

J voltage (208/240V) single phase air handler is designed to be used with single or three phase 208/240V volt electric heaters. In the case of connecting 3 phase power to air handler terminal block without the heater, bring only two leads to terminal block, cap, insulate and fully secure the third lead.
 Do not use 480V electrical heaters on 208/240V air handlers.

 If the kit is listed under both single and multiple circuits, the kit is shipped from factory as multiple circuits. For single phase application, Jumper bar kit RXBJ-A21 and RXBJ-A31 can be used to convert multiple circuits to a single supply circuit. Refer to Accessory Section for details.

# **Electrical Wiring**

## **Power Wiring**

- Field wiring must comply with the National Electrical Code (C.E.C. in Canada) and any applicable local ordinance.
- Supply wiring must be 75°C minimum copper conductors only.
- See electrical data for product Ampacity rating and Circuit Protector requirement.

## Accessories

## • Combustible Floor Base RXHB-

| Model Cabinet Size | Combustible Floor<br>Base Model Number |
|--------------------|--|
| 17                 | RXHB-17                                |
| 21                 | RXHB-21                                |
| 24                 | RXHB-24                                |

- Jumper Bar Kit 3 Ckt. to 1 Ckt. RXBJ-A31 is used to convert single phase multiple three circuit units to a single supply circuit. Kit includes cover and screw for line side terminals.
- Jumper Bar Kit 2 Ckt. to 1 Ckt. RXBJ-A21 is used to convert single phase multiple two circuit units to a single supply circuit. Kit includes cover and screw for line side terminals.
- Note: No jumper bar kit is available to convert three phase multiple two circuit units to a single supply circuit.

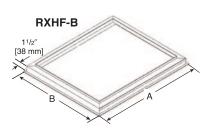
## • Auxiliary Horizontal Overflow Pan Accessory RXBM-

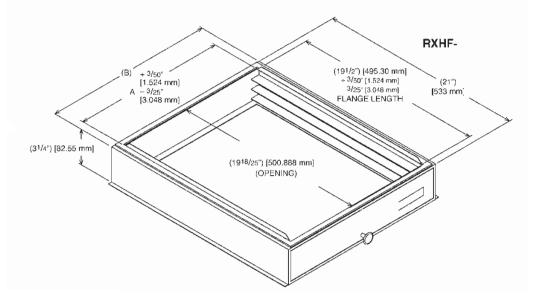
| Nominal Cooling<br>Capacity-Tons | Auxiliary Horizontal Overflow Pan<br>Accessory Model Number |
|----------------------------------|---|
| 11/2 - 3                         | RXBM-AC48   |
| 31/2 - 5                         | RXBM-AC61   |

### • External Filter Rack RXHF-B17, B21, B24

| Model Cabinet Size | Filter Size In. [mm] | Part Number* | Α     | В     |
|--------------------|----------------------|--------------|-------|-------|
| 17                 | 16 x 20 [406 x 508]  | RXHF-B17     | 16.90 | 20.77 |
| 21                 | 20 x 20 [508 x 508]  | RXHF-B21     | 20.40 | 20.77 |
| 24                 | 25 x 20 [635 x 508]  | RXHF-B24     | 25.00 | 21.04 |

\*Accommodates 1" filter





## Grounding

- This product must be sufficiently grounded in accordance with National Electrical Code (C.E.C. in Canada) and any applicable local ordinance.
- A grounding lug is provided.

## • Auxiliary Electric Heater Kits RXBH-

Heater Kits include circuit breakers which meet UL and cUL requirements for service disconnect. See the Electric Heat Electrical Data in this specification sheet for specific Heater Kit Model numbers.

### Horizontal Adapter Kit RXHH-

This horizontal adapter kit is used to convert Upflow/Downflow only models to horizontal flow. See the following table to order proper horizontal adapter kit.

| Coil Model     | Horizontal Adapter Kit<br>Model Number (Single Qty.) | Horizontal Adapter Kit<br>Model Number (10-Pack Qty.) |
|----------------|--|---|
| 2414           | RXHH-A01   | RXHH-A01 x 10   |
| 2417           | RXHH-A02   | RXHH-A02 x 10   |
| 3617/3621      | RXHH-A03   | RXHH-A03 x 10   |
| 3821/4821/4824 | RXHH-A04   | RXHH-A04 x 10   |
| 6024           | RXHH-A05   | RXHH-A05 x 10   |

## • External Filter Base RXHF-

| Model Cabinet Size | Filter Size In. [mm] | Part Number* | Α     | В    |
|--------------------|----------------------|--------------|-------|------|
| 17                 | 16 x 20 [406 x 508]  | RXHF-17      | 15.70 | 17.5 |
| 21                 | 20 x 20 [508 x 508]  | RXHF-21      | 19.20 | 21.0 |
| 24                 | 25 x 20 [635 x 508]  | RXHF-24      | 22.70 | 25.5 |

\*Accommodates 1" or 2" filter

## **GENERAL TERMS OF LIMITED WARRANTY\***

*Fujitsu General America, Inc.* will furnish a replacement for any part of this product which fails in normal use and service within the applicable periods stated, in accordance with the terms of the limited warranty. Conditional Parts (Registration Required) ......Ten (10) Years

\*For complete details of the Limited and Conditional Warranties, including applicable terms and conditions, contact your local contractor or the Manufacturer for a copy of the product warranty certificate.

Before proceeding with installation, refer to installation instructions packaged with each model, as well as complying with all Federal, State, Provincial, and Local codes, regulations, and practices.

"In keeping with its policy of continuous progress and product improvement, the right is reserved to make changes without notice." PRINTED IN U.S.A. 5-19 QG FORM NO. HFJ-552 REV. 2