

# TTJL/X

## DIGITAL CONTROLLER

A new dawn for controlling slip ring motors



**TT Electric**

[www.t-telectric.com](http://www.t-telectric.com)

# TTJL/X Digital Slip Ring Motor Controller

For retrofit application on cranes, material handling, hoists, pumps, compressors & conveyors

The **TTJL/X range** of slip ring motor drives delivers precise digital functionality and helps you take control of the most demanding motor control applications.

- **State-of-the-art** digital control for AC slip ring motors
- Output power **45kW - 975kW**
- **2Q** (single direction) and **4Q** (fully regenerative) options available
- **3** frame sizes
- Optional input voltages available on two largest frames (4 & 5) - **'MV' 600VAC** or **'HV' 690VAC**
- Standard version **150% overload** for 25 seconds
- High duty version **250% overload** for 25 seconds
- Up to **500VAC** standard input
- **17** digital inputs / **8** analogue inputs
- **7** digital outputs / **4** analogue outputs
- **Full suite** of standard software
- **CE** approved

# The TTJL/X range Standard versions



## Cost Effective

Reduces need to replace expensive slip ring motors



## Robust & Proven Digital Solution

Based on highly successful TT/X digital controller



## Designed for Crane & Hoist Retrofit Applications

Digital control of AC motors



## Fast Delivery

Available from stock



TTJL/X 130 - 270



TTJL/X 370 - 780



TTJL/X 860 - 1680

## FIELD BUS SYSTEMS

ETHERNET

PROFIBUS

CANBUS

MODBUS

DEVICENET

+ MANY MORE

# TYPICAL RETROFIT APPLICATIONS

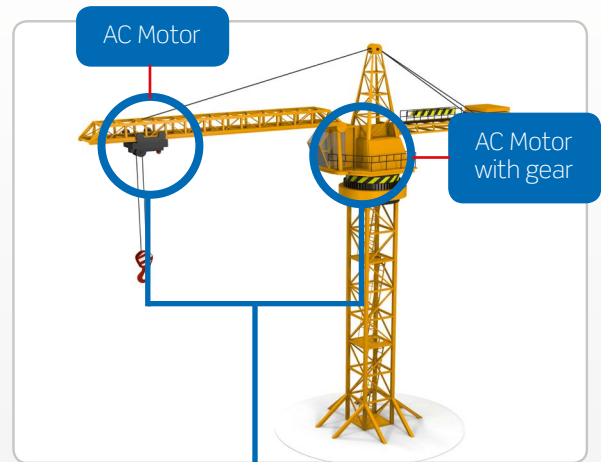
Wound rotor motors, or slip ring motors, are found in many applications such as cranes, material handling and hoists. Designed to provide high starting torque, slip ring motors use mechanically switched resistors to alter the torque-speed characteristics of the motor.

For end users wishing to improve control and functionality without replacing an expensive slip ring motor, the TTJL/X range of digital controllers offers a huge uplift in machine performance and is extremely cost effective.

## GANTRY CRANE



## TOWER CRANE



TTJL/X DIGITAL  
SLIP RING MOTOR  
CONTROLLER



EXISTING AC SLIP RING /  
WOUND ROTOR MOTOR,  
RESISTORS, FUSES ETC

# Other applications

For the TTJL/X  
Digital Slip Ring Motor  
Controller

MATERIAL HANDLING



HOISTS



PUMPS



COMPRESSORS

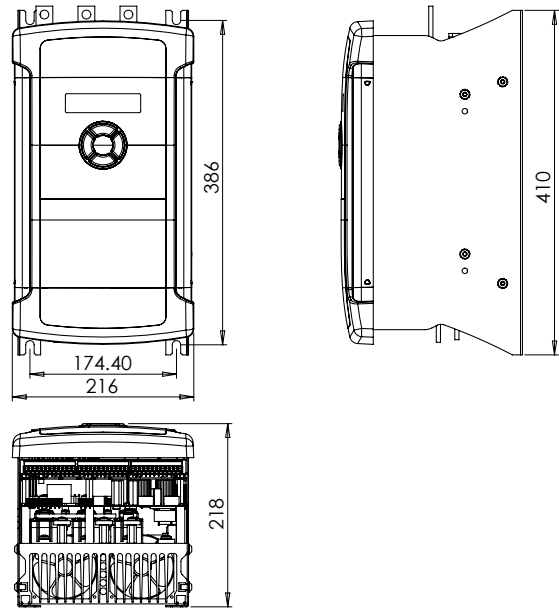


CONVEYORS

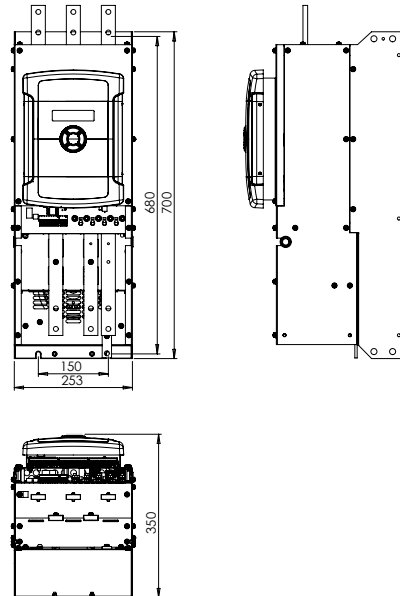


# FRAME DIMENSIONS

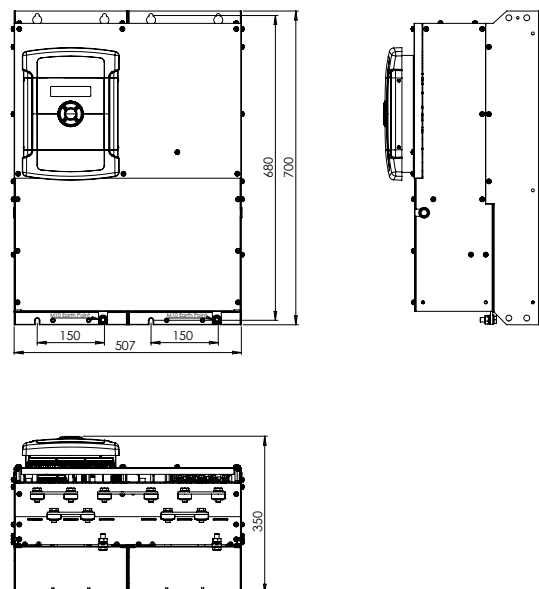
TTJL/X  
130 - 270



TTJL/X  
370 - 780



TTJL/X  
860 - 1680



# RATING TABLE FOR TTJL/X STANDARD VERSIONS

These models have a 150% overload capability for 25 seconds

## Nominal maximum continuous shaft ratings

| Model  |              | kW<br>at<br>415<br>Volt<br>AC | HP<br>at<br>415<br>Volt<br>AC | HP<br>at<br>480<br>Volt<br>AC | HP<br>600V<br>AC<br>MV<br>model | HP<br>690V<br>AC<br>HV<br>model | 100%<br>Output<br>Current | Line<br>reactor<br>type | Cooling air flow<br>and dissipation |       | Dimensions mm<br><br>W x H x D |
|--|--------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|---------------------------------|---------------------------|-------------------------|-------------------------------------|-------|--------------------------------|
| TTJL 2 quadrant<br>TTJLX 4 quadrant<br>Suffix HV for 690 VAC |              |                               |                               |                               |                                 |                                 |                           |                         | cfm                                 | watts |                                |
| <b>Frame 2</b>   | <b>Model</b> |                               |                               |                               |                                 |                                 |                           |                         |                                     |       |                                |
| TTJL and TTJLX   | 130          | 75                            | 100                           | 115                           | -                               | -                               | 130                       | LR330                   | 365                                 | 380   | 216 x 410 x 218                |
| TTJL and TTJLX   | 170          | 100                           | 130                           | 150                           | -                               | -                               | 170                       | LR330                   | 365                                 | 500   | 216 x 410 x 218                |
| TTJL and TTJLX   | 220          | 130                           | 170                           | 200                           | -                               | -                               | 220                       | LR330                   | 365                                 | 650   | 216 x 410 x 218                |
| TTJL and TTJLX   | 270          | 160                           | 210                           | 240                           | -                               | -                               | 270                       | LR330                   | 365                                 | 875   | 216 x 410 x 218                |
| <b>Frame 4</b>   |              |                               |                               |                               |                                 |                                 |                           |                         |                                     |       |                                |
| TTJL and TTJLX   | 370          | 215                           | 290                           | 335                           | 415                             | 480                             | 370                       | LR530                   | 400                                 | 1200  | 253 x 700 x 350                |
| TTJL and TTJLX   | 450          | 260                           | 350                           | 405                           | 500                             | 580                             | 450                       | LR530                   | 400                                 | 1450  | 253 x 700 x 350                |
| TTJL and TTJLX   | 530          | 310                           | 415                           | 480                           | 600                             | 690                             | 530                       | LR650                   | 400                                 | 1700  | 253 x 700 x 350                |
| TTJL and TTJLX   | 615          | 360                           | 480                           | 555                           | 690                             | 800                             | 615                       | LR750                   | 400                                 | 2000  | 253 x 700 x 350                |
| TTJL and TTJLX   | 700          | 405                           | 550                           | 630                           | 785                             | 915                             | 700                       | LR850                   | 400                                 | 2300  | 253 x 700 x 350                |
| TTJL and TTJLX   | 780          | 450                           | 610                           | 705                           | 880                             | 1015                            | 780                       | LR950                   | 400                                 | 2500  | 253 x 700 x 350                |
| <b>Frame 5</b>   |              |                               |                               |                               |                                 |                                 |                           |                         |                                     |       |                                |
| TTJL and TTJLX   | 860          | 500                           | 670                           | 775                           | 965                             | 1115                            | 860                       | LR1050                  | 800                                 | 2700  | 507 x 700 x 350                |
| TTJL and TTJLX   | 1025         | 595                           | 800                           | 925                           | 1155                            | 1330                            | 1025                      | LR1250                  | 800                                 | 3200  | 507 x 700 x 350                |
| TTJL and TTJLX   | 1190         | 690                           | 930                           | 1075                          | 1340                            | 1550                            | 1190                      | LR1450                  | 800                                 | 3700  | 507 x 700 x 350                |
| TTJL and TTJLX   | 1350         | 785                           | 1055                          | 1220                          | 1505                            | 1755                            | 1350                      | LR1650                  | 800                                 | 4200  | 507 x 700 x 350                |
| TTJL and TTJLX   | 1520         | 880                           | 1190                          | 1375                          | 1715                            | 1980                            | 1520                      | LR1850                  | 800                                 | 4700  | 507 x 700 x 350                |
| TTJL and TTJLX   | 1680         | 975                           | 1310                          | 1515                          | 1890                            | 2180                            | 1680                      | LR2050                  | 800                                 | 5200  | 507 x 700 x 350                |

# RATING TABLE FOR TTJL/XHD HIGH DUTY VERSIONS

These models have a 250% overload capability for 25 seconds

## Nominal maximum continuous shaft ratings

| Model  |              | kW<br>at<br>415<br>Volt<br>AC | HP<br>at<br>415<br>Volt<br>AC | HP<br>at<br>480<br>Volt<br>AC | HP<br>600V<br>AC<br>MV<br>model | HP<br>690V<br>AC<br>HV<br>model | 100%<br>Output<br>Current | Line<br>reactor<br>type | Cooling air flow<br>and dissipation |       | Dimensions mm<br><br>W x H x D |
|--|--------------|-------------------------------|-------------------------------|-------------------------------|---------------------------------|---------------------------------|---------------------------|-------------------------|-------------------------------------|-------|--------------------------------|
| TTJLHD 2 quadrant<br>TTJLXHD 4 quadrant<br>Suffix HV for 690 VAC |              |                               |                               |                               |                                 |                                 |                           |                         | cfm                                 | watts |                                |
| <b>Frame 2</b>   | <b>Model</b> |                               |                               |                               |                                 |                                 |                           |                         |                                     |       |                                |
| TTJLHD & TTJLXHD   | 75           | 45                            | 60                            | 70                            | -                               | -                               | 75                        | LR330                   | 365                                 | 380   | 216 x 410 x 218                |
| TTJLHD & TTJLXHD   | 100          | 60                            | 80                            | 90                            | -                               | -                               | 100                       | LR330                   | 365                                 | 500   | 216 x 410 x 218                |
| TTJLHD & TTJLXHD   | 130          | 75                            | 100                           | 115                           | -                               | -                               | 130                       | LR330                   | 365                                 | 650   | 216 x 410 x 218                |
| TTJLHD & TTJLXHD   | 160          | 95                            | 125                           | 145                           | -                               | -                               | 160                       | LR330                   | 365                                 | 875   | 216 x 410 x 218                |
| <b>Frame 4</b>   |              |                               |                               |                               |                                 |                                 |                           |                         |                                     |       |                                |
| TTJLHD & TTJLXHD   | 220          | 130                           | 170                           | 200                           | 250                             | 280                             | 220                       | LR530                   | 400                                 | 1200  | 253 x 700 x 350                |
| TTJLHD & TTJLXHD   | 270          | 160                           | 210                           | 240                           | 300                             | 350                             | 270                       | LR530                   | 400                                 | 1450  | 253 x 700 x 350                |
| TTJLHD & TTJLXHD   | 320          | 190                           | 250                           | 290                           | 360                             | 415                             | 320                       | LR650                   | 400                                 | 1700  | 253 x 700 x 350                |
| TTJLHD & TTJLXHD   | 370          | 215                           | 290                           | 335                           | 420                             | 480                             | 370                       | LR750                   | 400                                 | 2000  | 253 x 700 x 350                |
| TTJLHD & TTJLXHD   | 420          | 245                           | 330                           | 380                           | 475                             | 550                             | 420                       | LR850                   | 400                                 | 2300  | 253 x 700 x 350                |
| TTJLHD & TTJLXHD   | 470          | 270                           | 370                           | 430                           | 535                             | 615                             | 470                       | LR950                   | 400                                 | 2500  | 253 x 700 x 350                |
| <b>Frame 5</b>   |              |                               |                               |                               |                                 |                                 |                           |                         |                                     |       |                                |
| TTJLHD & TTJLXHD   | 520          | 300                           | 405                           | 470                           | 585                             | 670                             | 520                       | LR1050                  | 800                                 | 2700  | 507 x 700 x 350                |
| TTJLHD & TTJLXHD   | 615          | 360                           | 480                           | 555                           | 690                             | 800                             | 615                       | LR1250                  | 800                                 | 3200  | 507 x 700 x 350                |
| TTJLHD & TTJLXHD   | 715          | 415                           | 560                           | 650                           | 810                             | 930                             | 715                       | LR1450                  | 800                                 | 3700  | 507 x 700 x 350                |
| TTJLHD & TTJLXHD   | 815          | 475                           | 640                           | 740                           | 925                             | 1065                            | 815                       | LR1650                  | 800                                 | 4200  | 507 x 700 x 350                |
| TTJLHD & TTJLXHD   | 910          | 530                           | 710                           | 820                           | 1025                            | 1180                            | 910                       | LR1850                  | 800                                 | 4700  | 507 x 700 x 350                |
| TTJLHD & TTJLXHD   | 1010         | 585                           | 790                           | 915                           | 1140                            | 1310                            | 1010                      | LR2050                  | 800                                 | 5200  | 507 x 700 x 350                |

Find out more: [www.t-t-electric.com](http://www.t-t-electric.com)

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