

# Technical Specifications

Irismo™ 45 WireFree RTS

## Motor part numbers

Irismo™ 45 Mini DC RTS

Part# 1002353

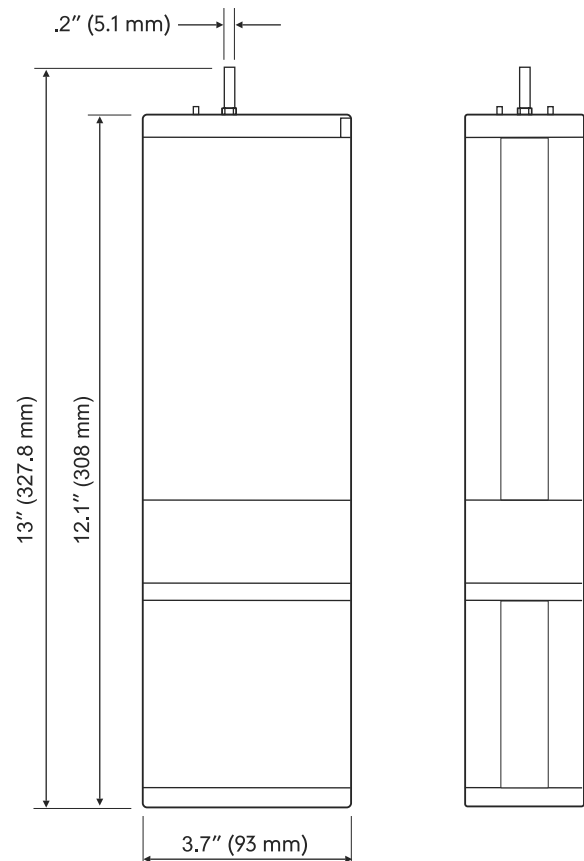
## Features overview

|  | Irismo™ 45 WireFree RTS |
|--|-------------------------|
| <b>Motor unit main features</b>          |                         |
| Soft start                               | ✓                       |
| Soft stop                                | ✓                       |
| Manual operation                         | ✓                       |
| Automatic limits on end stop             | ✓                       |
| Intermediate position                    | ✓                       |
| Touch motion with 2 sensitivity settings | ✓                       |
| Adjustable limits                        | ✓                       |
| Speed control & adjustment               | ✓                       |
| <b>Control options</b>                   |                         |
| Radio Technology Somfy® RTS              | ✓                       |
| Tandem alternative                       | ✓                       |
| Sun control                              | ✓                       |
| Timer control                            | ✓                       |
| <b>Installation and setting features</b> |                         |
| LED indicators                           | ✓                       |
| Audible sound Indicator                  | ✓                       |
| Motor unit direction change              | ✓                       |
| Factory reset/programming button         | ✓                       |
| Inverse mounting (top mount)             | ✓                       |
| <b>Tracks/Drapery Types</b>              |                         |
| Side opening                             | ✓                       |
| Center opening                           | ✓                       |
| Asymmetric                               | ✓                       |
| Pinch pleat                              | ✓                       |
| Ripplefold® with overlap arm             | ✓                       |
| Ripplefold® with butt arm                | ✓                       |
| Accordia®                                | ✓                       |

## Motorized track main characteristics

|   | Irismo™ 45 WireFree RTS |
|---|-------------------------|
| Power supply                              | 26.5V Li-Ion            |
| Average linear speed                      | 4.9 in./s - 7.86 in./s  |
| Rechargeable battery pack                 | 2950 mAh                |
| Motor sound level                         | <44 dBA                 |
| Certifications                            | CE/cTUV                 |
| Track maximum length                      | 33 ft. (10 m)           |
| Maximum number of junctions               | 2                       |
| Side opening max weight                   | 99 lbs. (45 kg)         |
| Center opening max weight                 | 99 lbs. (45 kg)         |
| Tandem alternative (see pages 10, 15, 24) | 198 lbs. (90 kg)        |

## Motor dimensions



# Technical Specifications

Irismo™ 35 Mini DC

## Motor part numbers

**Irismo™ 35 Mini DC RTS**

**Part# 1002952**

**Irismo™ 35 Mini DC DCT**

**Part# 1002951**

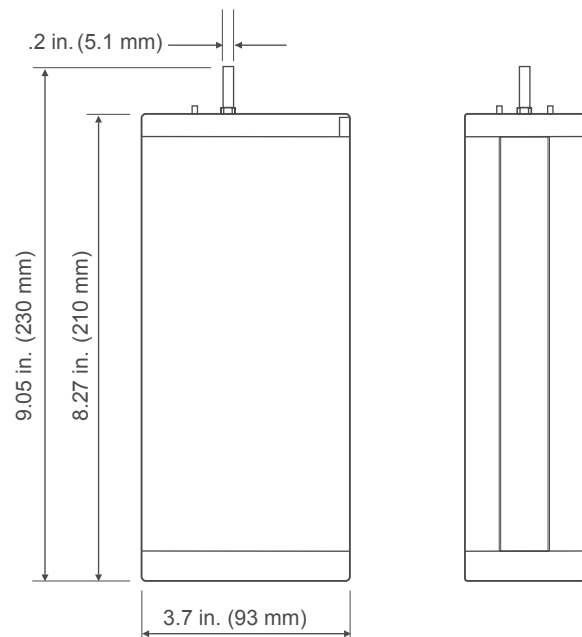
## Features overview

|  | Irismo™ 35 RTS | Irismo™ 35 DCT |
|--|----------------|----------------|
| <b>Motor unit main features</b>                  |                |                |
| Soft start                                       | ✓              | ✓              |
| Soft stop  | ✓              | ✓              |
| Manual operation                                 | ✓              | ✓              |
| Automatic limits on end stop                     | ✓              | ✓              |
| Intermediate position                            | ✓              | ✓              |
| Touch motion with 2 sensitivity settings         | ✓              | ✓              |
| Adjustable limits                                | ✓              | ✓              |
| Speed control & adjustment                       | ✓              | ✓              |
| <b>Control options</b>                           |                |                |
| Dry contact individual, group and master control | ✓              | ✓              |
| Radio Technology Somfy® RTS                      | ✓              |                |
| Tandem alternative                               | ✓              | ✓              |
| Sun control                                      | ✓              | ✓              |
| Timer control                                    | ✓              | ✓              |
| <b>Installation and setting features</b>         |                |                |
| Settings with buttons on motor unit              | ✓              |                |
| Setting with normally open dry contact switch    | ✓              | ✓              |
| LED indicators                                   | ✓              |                |
| Motor unit direction change                      | ✓              | ✓              |
| Factory reset                                    | ✓              | ✓              |
| Inverse mounting (top mount)                     | ✓              | ✓              |
| <b>Tracks/Drapery Types</b>                      |                |                |
| Side opening                                     | ✓              | ✓              |
| Center opening                                   | ✓              | ✓              |
| Asymmetric                                       | ✓              | ✓              |
| Multiple   | ✓              | ✓              |
| Pinch pleat                                      | ✓              | ✓              |
| Ripplefold® with overlap arm                     | ✓              | ✓              |
| Ripplefold® with butt arm                        | ✓              | ✓              |
| Accordia®  | ✓              | ✓              |

## Motorized track main characteristics

|  | Irismo™ 35 RTS         | Irismo™ 35 DCT |
|--|------------------------|----------------|
| Power Supply                                 | 24V DC                 |                |
| Amperage                                     | 2 A                    |                |
| Average linear speed                         | 4.9 in./s - 7.86 in./s |                |
| Power consumption                            | < 3 W                  |                |
| Power cable type                             | 13.2 ft. (4 m)         |                |
| Control connector type                       | RJ12                   |                |
| DCT control circuit voltage                  | 5V DC                  |                |
| Motor sound level                            | <44 dBA                |                |
| Certifications                               | CE                     |                |
| Track maximum length                         | 32 ft. (9.7 m)         |                |
| Maximum number of junctions                  | 2                      |                |
| Minimum bending radius                       | 11.8 in. (30 cm)       |                |
| Minimum curving radius                       | 118 in. (300 cm)       |                |
| Side opening max weight                      | 77 lbs. (35 kg)        |                |
| Center opening max weight                    | 77 lbs. (35 kg)        |                |
| Tandem alternative<br>(see pages 10, 15, 24) | 154 lbs. (70 kg)       |                |

## Motor dimensions



# Technical Specifications

Glydea® 35e

## Motor part numbers

|   |                      |
|---|----------------------|
| <b>Glydea® 35e DCT motor</b><br>(with 10' cable and molded NEMA plug)   | <b>Part# 1002465</b> |
| <b>Glydea® 35e RTS motor</b><br>(with 10' cable and molded NEMA plug)   | <b>Part# 1001615</b> |
| <b>Glydea® 35e RS485 motor</b><br>(with 10' cable and molded NEMA plug) | <b>Part# 1002109</b> |
| <b>Glydea® 35e Wired motor</b><br>(5' long without plug)                | <b>Part# 1002464</b> |

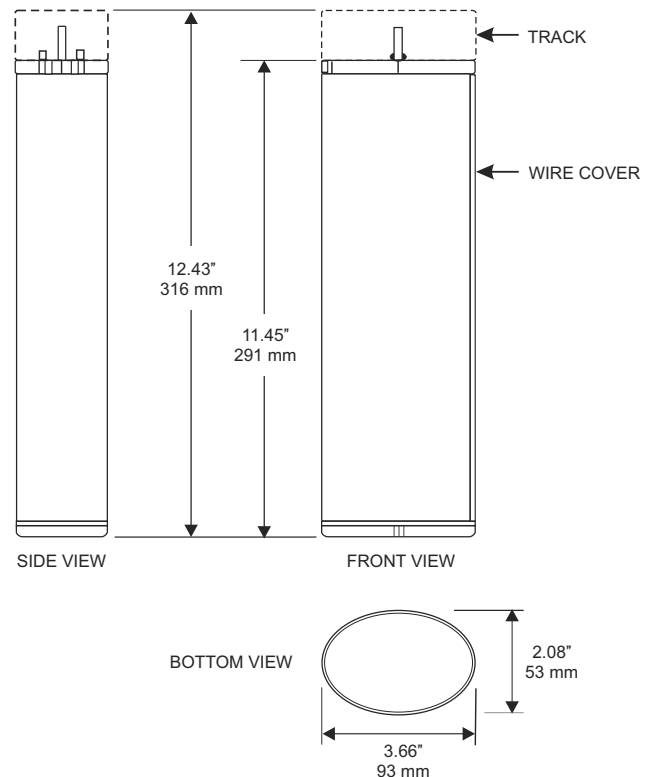
## Features overview

|  | Glydea® 35e |
|--|-------------|
| <b>Motor unit main features</b>                  |             |
| Soft start                                       | ✓           |
| Manual operation                                 | ✓           |
| Automatic limits on end stop                     | ✓           |
| Soft stop  | ✓           |
| Intermediate position                            | ✓           |
| Touch motion with 2 sensitivity settings         | ✓           |
| Adjustable limits                                | ✓           |
| Speed control & adjustment                       | ✓           |
| <b>Control options</b>                           |             |
| 3 normally open dry contacts                     | ✓           |
| 2 normally open dry contacts                     | ✓           |
| 2 normally open dry contact sequencing mode      | ✓           |
| Dry contact individual, group and master control | ✓           |
| Radio Technology Somfy® RTS                      | ✓           |
| Infrared   | ✓           |
| RS485 digital technology                         | ✓           |
| Z-Wave®  | ✓           |
| ZigBee®  | ✓           |
| Tandem alternative                               | ✓           |
| Sun control                                      | ✓           |
| Timer control                                    | ✓           |
| <b>Installation and setting features</b>         |             |
| Settings with buttons on motor unit              | ✓           |
| Setting with 3 normally open dry contact switch  | ✓           |
| LED indicators                                   | ✓           |
| Motor unit direction change                      | ✓           |
| Factory reset                                    | ✓           |
| Inverse (top mount) mounting                     | ✓           |
| <b>Tracks/Drapery Types</b>                      |             |
| Side opening                                     | ✓           |
| Center opening                                   | ✓           |
| Asymmetric                                       | ✓           |
| Multiple   | ✓           |
| Pinch pleat                                      | ✓           |
| Ripplefold® with overlap arm                     | ✓           |
| Ripplefold® with butt arm                        | ✓           |
| Accordia®  | ✓           |

## Motorized track main characteristics

|  | Glydea® 35e   |
|--|---|
| Power Supply                                 | 120V AC 50/60 HZ  |
| Amperage                                     | 0.5 A   |
| Average linear speed                         | 4.9"/s - 7.86"/s  |
| Power consumption                            | 60 W  |
| Power cable type                             | 3-wire cable with molded NEMA plug<br>4-wire cable (wired version only) |
| Control connector type                       | RJ12  |
| DCT control circuit voltage                  | 3.3 VDC   |
| Motor sound level                            | <44 dB(A)   |
| Certifications                               | c TUV us, CE  |
| Track maximum length                         | 32 ft (9.7 m)   |
| Maximum number of splices                    | 2   |
| Minimum bending radius                       | 11.8 in. (30 cm)  |
| Minimum curving radius                       | 118 in. (300 cm)  |
| Side opening max weight                      | 77 lbs<br>35 kg   |
| Center opening max weight                    | 77 lbs<br>35 kg   |
| Tandem alternative<br>(see pages 10, 15, 24) | 154 lbs/ 70 kgs<br>64 ft/ 19.4 m  |

## Motor dimensions



# Technical Specifications

Glydea® 60e

## Motor part numbers

|   |                      |
|---|----------------------|
| <b>Glydea® 60e DCT motor</b><br>(with 10' cable and molded NEMA plug)   | <b>Part# 1002545</b> |
| <b>Glydea® 60e RTS motor</b><br>(with 10' cable and molded NEMA plug)   | <b>Part# 1001617</b> |
| <b>Glydea® 60e RS485 motor</b><br>(with 10' cable and molded NEMA plug) | <b>Part# 1002108</b> |
| <b>Glydea® 60e Wired motor</b><br>(without plug)                        | <b>Part# 1001537</b> |

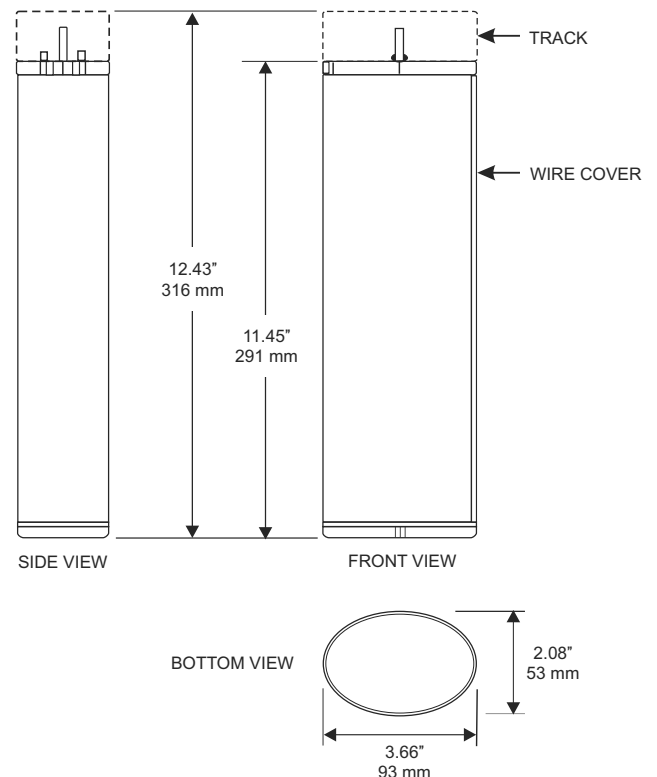
## Features overview

|  | Glydea® 60e |
|--|-------------|
| <b>Motor unit main features</b>                  |             |
| Soft start                                       | ✓           |
| Manual operation                                 | ✓           |
| Automatic limits on end stop                     | ✓           |
| Soft stop  | ✓           |
| Intermediate position                            | ✓           |
| Touch motion with 2 sensitivity settings         | ✓           |
| Adjustable limits                                | ✓           |
| Speed control & adjustment                       | ✓           |
| <b>Control options</b>                           |             |
| 3 normally open dry contacts                     | ✓           |
| 2 normally open dry contacts                     | ✓           |
| 2 normally open dry contact sequencing mode      | ✓           |
| Dry contact individual, group and master control | ✓           |
| Radio Technology Somfy® RTS                      | ✓           |
| Infrared   | ✓           |
| RS485 digital technology                         | ✓           |
| Z-Wave®  | ✓           |
| ZigBee®  | ✓           |
| Tandem alternative                               | ✓           |
| Sun control                                      | ✓           |
| Timer control                                    | ✓           |
| <b>Installation and setting features</b>         |             |
| Settings with buttons on motor unit              | ✓           |
| Setting with 3 normally open dry contact switch  | ✓           |
| LED indicators                                   | ✓           |
| Motor unit direction change                      | ✓           |
| Factory reset                                    | ✓           |
| Inverse (top mount) mounting                     | ✓           |
| <b>Tracks/Drapery Types</b>                      |             |
| Side opening                                     | ✓           |
| Center opening                                   | ✓           |
| Asymmetric                                       | ✓           |
| Multiple   | ✓           |
| Pinch pleat                                      | ✓           |
| Ripplefold® with overlap arm                     | ✓           |
| Ripplefold® with butt arm                        | ✓           |
| Accordia®  | ✓           |

## Motorized track main characteristics

|  | Glydea® 60e   |
|--|---|
| Power Supply                                 | 120V AC 50/60 HZ  |
| Amperage                                     | 1A  |
| Average linear speed                         | 4.9"/s - 7.86"/s  |
| Power consumption                            | 120 W   |
| Power cable type                             | 3-wire cable with molded NEMA plug<br>4-wire cable (wired version only) |
| Control connector type                       | RJ12  |
| DCT control circuit voltage                  | 3.3 VDC   |
| Motor sound level                            | <44 dB(A)   |
| Certifications                               | c TUV us, CE  |
| Track maximum length                         | 36 ft (10.9 m)  |
| Maximum number of splices                    | 2   |
| Minimum bending radius                       | 11.8 in. (30 cm)  |
| Minimum curving radius                       | 118 in. (300 cm)  |
| Side opening max weight                      | 132 lbs<br>60 kg  |
| Center opening max weight                    | 132 lbs<br>60 kg  |
| Tandem alternative<br>(see pages 10, 15, 24) | 264 lbs/ 120 kgs<br>72 ft/ 21.8 m                                       |

## Motor dimensions



# Technical Specifications

## SELECTION CHARTS

\*STACKING CHART - for reference only

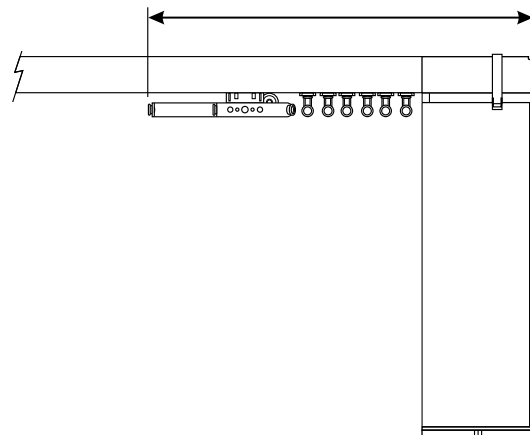
| Track Type                                 | Glydea® 35e & Irismo™ 35 Mini DC |              |              | Irismo™ 45 WireFree RTS |              |              | Glydea® 60e  |              |              |
|--|----------------------------------|--------------|--------------|-------------------------|--------------|--------------|--------------|--------------|--------------|
|  | UP TO 10 FT.                     | UP TO 20 FT. | UP TO 32 FT. | UP TO 33 FT.            | UP TO 10 FT. | UP TO 32 FT. | UP TO 10 FT. | UP TO 32 FT. | UP TO 36 FT. |
| <b>A</b> One Way                           | 77 Lbs.                          |              |              | 99 Lbs.                 | 132 Lbs.     |              |              |              |              |
| <b>B</b> Center Opening                    | 77 Lbs.                          |              |              | 99 Lbs.                 | 132 Lbs.     |              |              |              |              |
| <b>C</b> Asymetrical                       | 77 Lbs.                          |              |              | 99 Lbs.                 | 132 Lbs.     |              |              |              |              |
| <b>D</b> One Way w/Bend                    | 77 Lbs.                          | 55 Lbs.      | 44 Lbs.      | NA                      | 100 Lbs.     | 100 Lbs.     | 77 Lbs.      |              |              |
| <b>E</b> Center Opening w/Bend             | 77 Lbs.                          | 55 Lbs.      | 44 Lbs.      | NA                      | 100 Lbs.     | 100 Lbs.     | 77 Lbs.      |              |              |
| <b>F</b> One Way w/2 Bends                 | 33 Lbs.                          | 22 Lbs.      | -            | NA                      | 77 Lbs.      | 55 Lbs.      | -            |              |              |
| <b>G</b> Center Opening w/2 Bends          | 33 Lbs.                          | 22 Lbs.      | -            | NA                      | 77 Lbs.      | 55 Lbs.      | -            |              |              |
| <b>H</b> One Way w/Continuous Curve        | 77 Lbs.                          | 33 Lbs.      | -            | NA                      | 132 Lbs.     | 55 Lbs.      | -            |              |              |
| <b>I</b> Center Opening w/Continuous Curve | 66 Lbs.                          | 22 Lbs.      | -            | NA                      | 113 Lbs.     | 38 Lbs.      | -            |              |              |

| TRACK SIZES | RIPPLEFOLD® - inches carrier count - ( ) |              |              |                    |                     |                     |
|-------------|--|--------------|--------------|--------------------|---------------------|---------------------|
|             | ONE WAY 80%                              | ONE WAY 100% | ONE WAY 120% | CENTER OPENING 80% | CENTER OPENING 100% | CENTER OPENING 120% |
|             | Butt Arm                                 | Butt Arm     | Butt Arm     | Butt Arm           | Butt Arm            | Butt Arm            |
| Up to 4 ft. | 19.5 (20)                                | 21.5 (24)    | 23.5 (28)    | 12.25 (20)         | 13.25 (24)          | 14.25 (28)          |
| 5 ft.       | 22 (25)                                  | 24.5 (30)    | 27 (35)      | 13.75 (26)         | 14.75 (30)          | 16.25 (36)          |
| 6 ft.       | 24.5 (30)                                | 27.5 (36)    | 30.5 (42)    | 14.75 (30)         | 16.25 (36)          | 17.75 (42)          |
| 7 ft.       | 27 (35)                                  | 30.5 (42)    | 34 (49)      | 16.25 (36)         | 17.75 (42)          | 19.75 (50)          |
| 8 ft.       | 29.5 (40)                                | 33.5 (48)    | 37.5 (56)    | 17.25 (40)         | 19.25 (48)          | 21.25 (56)          |
| 9 ft.       | 32 (45)                                  | 36.5 (54)    | 41 (63)      | 18.75 (46)         | 20.75 (54)          | 23.25 (64)          |
| 10 ft.      | 34.5 (50)                                | 39.5 (60)    | 44.5 (70)    | 19.75 (50)         | 22.25 (60)          | 24.75 (70)          |
| 11 ft.      | 37 (55)                                  | 42.5 (66)    | 48 (77)      | 21.25 (56)         | 23.75 (66)          | 26.75 (78)          |
| 12 ft.      | 39.5 (60)                                | 45.5 (72)    | 51.5 (84)    | 22.25 (60)         | 25.25 (72)          | 28.25 (84)          |
| 13 ft.      | 42 (65)                                  | 48.5 (78)    | 55 (91)      | 23.75 (66)         | 26.75 (78)          | 30.25 (92)          |
| 14 ft.      | 44.5 (70)                                | 51.5 (84)    | 58.5 (98)    | 24.75 (70)         | 28.25 (84)          | 31.75 (98)          |
| 15 ft.      | 47 (75)                                  | 54.5 (90)    | 62 (105)     | 26.25 (76)         | 29.75 (90)          | 33.75 (106)         |
| 16 ft.      | 49.5 (80)                                | 57.5 (96)    | 65.5 (112)   | 27.25 (80)         | 31.25 (96)          | 35.25 (112)         |
| 17 ft.      | 52 (85)                                  | 60.5 (102)   | 69 (119)     | 28.75 (86)         | 32.75 (102)         | 37.25 (120)         |
| 18 ft.      | 54.5 (90)                                | 63.5 (108)   | 72.5 (126)   | 29.75 (90)         | 34.25 (108)         | 38.75 (126)         |
| 19 ft.      | 57 (95)                                  | 66.5 (114)   | 76 (133)     | 31.25 (96)         | 35.75 (114)         | 40.75 (134)         |
| 20 ft.      | 59.5 (100)                               | 69.5 (120)   | 79.5 (140)   | 32.25 (100)        | 37.25 (120)         | 42.25 (140)         |
| 21 ft.      | 62 (105)                                 | 72.5 (126)   | 83 (147)     | 33.75 (106)        | 38.75 (126)         | 44.25 (148)         |
| 22 ft.      | 64.5 (110)                               | 75.5 (132)   | 86.5 (154)   | 34.75 (110)        | 40.25 (132)         | 45.75 (154)         |
| 23 ft.      | 67 (115)                                 | 78.5 (138)   | 90 (161)     | 36.25 (116)        | 41.75 (138)         | 47.75 (162)         |
| 24 ft.      | 69.5 (120)                               | 81.5 (144)   | 93.5 (168)   | 37.25 (120)        | 43.25 (144)         | 49.25 (168)         |
| 25 ft.      | 72 (125)                                 | 84.5 (150)   | 97 (175)     | 38.75 (126)        | 44.75 (150)         | 51.25 (176)         |
| 26 ft.      | 74.5 (130)                               | 87.5 (156)   | 100.5 (182)  | 39.75 (130)        | 46.25 (156)         | 52.75 (182)         |
| 27 ft.      | 77 (135)                                 | 90.5 (162)   | 104 (189)    | 41.25 (136)        | 47.75 (162)         | 54.75 (190)         |
| 28 ft.      | 79.5 (140)                               | 93.5 (168)   | 107.5 (196)  | 42.25 (140)        | 49.25 (168)         | 56.25 (196)         |
| 29 ft.      | 82 (145)                                 | 96.5 (174)   | 111 (203)    | 43.75 (146)        | 50.75 (174)         | 58.25 (204)         |
| 30 ft.      | 84.5 (150)                               | 99.5 (180)   | 114.5 (210)  | 44.75 (150)        | 52.25 (180)         | 59.75 (210)         |
| 31 ft.      | 87 (155)                                 | 102.5 (186)  | 118 (217)    | 46.25 (156)        | 53.75 (186)         | 61.75 (218)         |
| 32 ft.      | 89.5 (160)                               | 105.5 (192)  | 121.5 (224)  | 47.25 (160)        | 55.25 (192)         | 63.25 (224)         |
| 33 ft.      | 92 (165)                                 | 108.5 (198)  | 125 (231)    | 48.75 (166)        | 56.75 (198)         | 65.25 (232)         |
| 34 ft.      | 94.5 (170)                               | 111.5 (204)  | 128.5 (238)  | 49.75 (170)        | 58.25 (204)         | 66.75 (238)         |
| 35 ft.      | 97 (175)                                 | 114.5 (210)  | 132 (245)    | 51.25 (176)        | 59.75 (210)         | 68.75 (246)         |
| 36 ft.      | 99.5 (180)                               | 117.5 (216)  | 135.5 (252)  | 52.25 (180)        | 61.25 (216)         | 70.25 (252)         |

## DUAL MOTOR TANDEM ALTERNATIVE (2 one way tracks)

| Track Type                           |              | Irismo™ 45 WireFree RTS | Glydea® 60e  |              |              | Glydea® 35e & Irismo™ 35 Mini DC |              |              |
|--------------------------------------|--------------|-------------------------|--------------|--------------|--------------|----------------------------------|--------------|--------------|
| 2 One Way Butted Tracks              |              | UP TO 33 FT.            | UP TO 10 FT. | UP TO 32 FT. | UP TO 36 FT. | UP TO 10 FT.                     | UP TO 20 FT. | UP TO 32 FT. |
| <b>J</b> Center opening w/2 Straight | (1) Straight | 99 Lbs.                 | 132 Lbs.     |              |              | 77 Lbs.                          |              |              |
|                                      | (1) Straight | 99 Lbs.                 | 132 Lbs.     |              |              | 77 Lbs.                          |              |              |
| <b>K</b> Center opening w/1 Bend     | (1) 90° Bend | NA                      | 100 Lbs.     | 77 Lbs.      | 77 Lbs.      | 55 Lbs.                          | 44 Lbs.      |              |
|                                      | (1) Straight | NA                      | 132 Lbs.     |              |              | 77 Lbs.                          |              |              |
| <b>L</b> Center opening w/2 Bends    | (1) 90° Bend | NA                      | 100 Lbs.     | 77 Lbs.      | 77 Lbs.      | 55 Lbs.                          | 44 Lbs.      |              |
|                                      | (1) 90° Bend | NA                      | 100 Lbs.     | 77 Lbs.      | 77 Lbs.      | 55 Lbs.                          | 44 Lbs.      |              |
| <b>M</b> Center opening w/2 Curves   | (1) Curve    | NA                      | 132 Lbs.     | 55 Lbs.      | -            | 77 Lbs.                          | 33 Lbs.      | -            |
|                                      | (1) Curve    | NA                      | 132 Lbs.     | 55 Lbs.      | -            | 77 Lbs.                          | 33 Lbs.      | -            |

\* Measurements do not consider drapery fabric and are calculated from end of pulley to front of master arm (shown here).



# Technical Specifications

| TRACK<br>SIZES | RIPPLEFOLD® - inches<br>carrier count - ( ) |                 |                 |                       |                 |                        |                 |                        |                 |  | PINCH PLEAT - inches<br>carrier count - ( ) |                |                 |
|----------------|---|-----------------|-----------------|-----------------------|-----------------|------------------------|-----------------|------------------------|-----------------|--|---|----------------|-----------------|
|                | ONE WAY<br>80%                              | ONE WAY<br>100% | ONE WAY<br>120% | CENTER OPENING<br>80% |                 | CENTER OPENING<br>100% |                 | CENTER OPENING<br>120% |                 |  | ONE WAY                                     | CENTER OPENING |                 |
|                | Overlap<br>Arm                              | Overlap<br>Arm  | Overlap<br>Arm  | Overlap<br>Arm        | Straight<br>Arm | Overlap<br>Arm         | Straight<br>Arm | Overlap<br>Arm         | Straight<br>Arm |  | Overlap<br>Arm                              | Overlap<br>Arm | Straight<br>Arm |
| Up to 4 ft.    | 19.25 (20)                                  | 21.25 (24)      | 23.25 (28)      | 14 (10)               | 13.75 (10)      | 15 (12)                | 14.75 (12)      | 16.25 (14)             | 16 (14)         |  | 15.25 (12)                                  | 11.75 (6)      | 11.5 (6)        |
| 5 ft.          | 21.75 (25)                                  | 24.25 (30)      | 26.75 (35)      | 15.5 (13)             | 15.25 (13)      | 16.5 (15)              | 16.25 (15)      | 18.25 (18)             | 18 (18)         |  | 16.75 (15)                                  | 12.75 (8)      | 12.5 (8)        |
| 6 ft.          | 24.25 (30)                                  | 27.25 (36)      | 30.25 (42)      | 16.5 (15)             | 16.25 (15)      | 18 (18)                | 17.75 (18)      | 19.75 (21)             | 19.5 (21)       |  | 18.25 (18)                                  | 13.25 (9)      | 13 (9)          |
| 7 ft.          | 26.75 (35)                                  | 30.25 (42)      | 33.75 (49)      | 18 (18)               | 17.75 (18)      | 19.5 (21)              | 19.25 (21)      | 21.75 (25)             | 21.5 (25)       |  | 19.75 (21)                                  | 14.25 (11)     | 14 (11)         |
| 8 ft.          | 29.25 (40)                                  | 33.25 (48)      | 37.25 (56)      | 19 (20)               | 18.75 (20)      | 21 (24)                | 20.75 (24)      | 23.25 (28)             | 23 (28)         |  | 21.25 (24)                                  | 14.75 (12)     | 14.5 (12)       |
| 9 ft.          | 31.75 (45)                                  | 36.25 (54)      | 40.75 (63)      | 20.5 (23)             | 20.25 (23)      | 22.5 (26)              | 22.25 (26)      | 25.25 (32)             | 25 (32)         |  | 22.75 (27)                                  | 15.75 (14)     | 15.5 (14)       |
| 10 ft.         | 34.25 (50)                                  | 39.25 (60)      | 44.25 (70)      | 21.5 (25)             | 21.25 (25)      | 24 (30)                | 23.75 (30)      | 26.75 (35)             | 26.5 (35)       |  | 24.25 (30)                                  | 16.25 (15)     | 16 (15)         |
| 11 ft.         | 36.75 (55)                                  | 42.25 (66)      | 47.75 (77)      | 23 (28)               | 22.75 (28)      | 25.5 (33)              | 25.25 (33)      | 28.75 (39)             | 28.5 (39)       |  | 25.75 (33)                                  | 17.25 (17)     | 17 (17)         |
| 12 ft.         | 39.25 (60)                                  | 45.25 (72)      | 51.25 (84)      | 24 (30)               | 23.75 (30)      | 27 (36)                | 26.75 (36)      | 30.25 (42)             | 30 (42)         |  | 27.25 (36)                                  | 17.75 (18)     | 17.5 (18)       |
| 13 ft.         | 41.75 (65)                                  | 48.25 (78)      | 54.75 (91)      | 25.5 (33)             | 25.25 (33)      | 28.5 (39)              | 28.25 (39)      | 32.25 (46)             | 32 (46)         |  | 28.75 (39)                                  | 18.75 (20)     | 18.5 (20)       |
| 14 ft.         | 44.25 (70)                                  | 51.25 (84)      | 58.25 (98)      | 26.5 (35)             | 26.25 (35)      | 30 (42)                | 29.75 (42)      | 33.75 (49)             | 33.5 (49)       |  | 30.25 (42)                                  | 19.25 (21)     | 19 (21)         |
| 15 ft.         | 46.75 (75)                                  | 54.25 (90)      | 61.75 (105)     | 28 (38)               | 27.75 (38)      | 31.5 (45)              | 31.25 (45)      | 35.75 (53)             | 35.5 (53)       |  | 31.75 (45)                                  | 20.25 (23)     | 20 (23)         |
| 16 ft.         | 49.25 (80)                                  | 57.25 (96)      | 65.25 (112)     | 29 (40)               | 28.75 (40)      | 33 (48)                | 32.75 (48)      | 37.25 (56)             | 37 (56)         |  | 33.25 (48)                                  | 20.75 (24)     | 20.5 (24)       |
| 17 ft.         | 51.75 (85)                                  | 60.25 (102)     | 68.75 (119)     | 30.5 (43)             | 30.25 (43)      | 34.5 (51)              | 34.25 (51)      | 39.25 (60)             | 39 (60)         |  | 34.75 (51)                                  | 21.75 (26)     | 21.5 (26)       |
| 18 ft.         | 54.25 (90)                                  | 63.25 (108)     | 72.25 (126)     | 31.5 (45)             | 31.25 (45)      | 36 (54)                | 35.75 (54)      | 40.75 (63)             | 40.5 (63)       |  | 36.25 (54)                                  | 22.25 (27)     | 22 (27)         |
| 19 ft.         | 56.75 (95)                                  | 66.25 (114)     | 75.75 (133)     | 33 (48)               | 32.75 (48)      | 37.5 (57)              | 37.25 (57)      | 42.75 (67)             | 42.5 (67)       |  | 37.75 (57)                                  | 23.25 (29)     | 23 (29)         |
| 20 ft.         | 59.25 (100)                                 | 69.25 (120)     | 79.24 (140)     | 34 (50)               | 33.75 (50)      | 39 (60)                | 38.75 (60)      | 44.25 (70)             | 44 (70)         |  | 39.25 (60)                                  | 23.75 (30)     | 23.5 (30)       |
| 21 ft.         | 61.75 (105)                                 | 72.25 (126)     | 82.75 (147)     | 35.5 (53)             | 35.25 (53)      | 40.5 (63)              | 40.25 (63)      | 46.25 (74)             | 46 (74)         |  | 40.75 (63)                                  | 24.75 (32)     | 24.5 (32)       |
| 22 ft.         | 64.25 (110)                                 | 75.25 (132)     | 86.25 (154)     | 36.5 (55)             | 36.25 (55)      | 42 (66)                | 41.75 (66)      | 47.75 (77)             | 47.5 (77)       |  | 42.25 (66)                                  | 25.25 (33)     | 25 (33)         |
| 23 ft.         | 66.75 (115)                                 | 78.25 (138)     | 89.75 (161)     | 38 (58)               | 37.75 (58)      | 43.5 (69)              | 43.25 (69)      | 49.75 (81)             | 49.5 (81)       |  | 43.75 (69)                                  | 26.25 (35)     | 26 (35)         |
| 24 ft.         | 69.25 (120)                                 | 81.25 (144)     | 93.25 (168)     | 39 (60)               | 38.75 (60)      | 45 (72)                | 44.75 (72)      | 51.25 (84)             | 52 (84)         |  | 45.25 (72)                                  | 26.75 (36)     | 26.5 (36)       |
| 25 ft.         | 71.75 (125)                                 | 84.25 (150)     | 96.75 (175)     | 40.5 (63)             | 40.25 (63)      | 46.5 (75)              | 46.25 (75)      | 53.25 (88)             | 53 (88)         |  | 46.75 (75)                                  | 27.75 (38)     | 27.5 (38)       |
| 26 ft.         | 74.25 (130)                                 | 87.25 (156)     | 100.25 (182)    | 41.5 (65)             | 41.25 (65)      | 48 (78)                | 47.75 (78)      | 54.75 (91)             | 54.5 (91)       |  | 48.25 (78)                                  | 28.25 (39)     | 28 (39)         |
| 27 ft.         | 76.75 (135)                                 | 90.25 (162)     | 103.75 (189)    | 43 (68)               | 42.75 (68)      | 49.5 (81)              | 49.25 (81)      | 56.75 (95)             | 56.5 (95)       |  | 49.75 (81)                                  | 29.25 (41)     | 29 (41)         |
| 28 ft.         | 79.25 (140)                                 | 93.25 (168)     | 107.25 (196)    | 44 (70)               | 43.75 (70)      | 51 (84)                | 50.75 (84)      | 58.25 (98)             | 58 (98)         |  | 51.25 (84)                                  | 29.75 (42)     | 29.5 (42)       |
| 29 ft.         | 81.75 (145)                                 | 96.25 (174)     | 110.75 (203)    | 45.5 (73)             | 45.25 (73)      | 52.5 (87)              | 52.25 (87)      | 60.25 (102)            | 60 (102)        |  | 52.75 (87)                                  | 30.75 (44)     | 30.5 (44)       |
| 30 ft.         | 84.25 (150)                                 | 99.25 (180)     | 114.25 (210)    | 46.5 (75)             | 46.25 (75)      | 54 (90)                | 53.75 (90)      | 61.75 (105)            | 61.5 (105)      |  | 54.25 (90)                                  | 31.25 (45)     | 31 (45)         |
| 31 ft.         | 86.75 (155)                                 | 102.3 (186)     | 117.75 (217)    | 48 (78)               | 47.75 (78)      | 55.5 (93)              | 55.25 (93)      | 63.75 (108)            | 63.5 (108)      |  | 55.75 (93)                                  | 32.25 (47)     | 32 (47)         |
| 32 ft.         | 89.25 (160)                                 | 105.3 (192)     | 121.25 (224)    | 49 (80)               | 48.75 (80)      | 57 (96)                | 56.75 (96)      | 65.25 (112)            | 65 (112)        |  | 57.25 (96)                                  | 32.75 (48)     | 32.5 (48)       |
| 33 ft.         | 91.75 (165)                                 | 108.3 (198)     | 124.75 (231)    | 50.5 (83)             | 50.25 (83)      | 58.5 (99)              | 58.25 (99)      | 67.25 (116)            | 67 (116)        |  | 58.75 (99)                                  | 33.75 (50)     | 33.5 (50)       |
| 34 ft.         | 94.25 (170)                                 | 111.3 (204)     | 128.25 (238)    | 51.5 (85)             | 51.25 (85)      | 60 (102)               | 59.75 (102)     | 68.75 (118)            | 68.5 (118)      |  | 60.25 (102)                                 | 34.25 (51)     | 34 (51)         |
| 35 ft.         | 96.75 (175)                                 | 114.3 (210)     | 131.75 (245)    | 53 (86)               | 52.75 (86)      | 61.5 (105)             | 61.25 (105)     | 70.75 (123)            | 70.5 (123)      |  | 61.75 (105)                                 | 35.25 (53)     | 35 (53)         |
| 36 ft.         | 99.25 (180)                                 | 117.3 (216)     | 135.25 (252)    | 54 (90)               | 53.75 (90)      | 63 (108)               | 62.75 (108)     | 72.25 (126)            | 72 (126)        |  | 63.25 (108)                                 | 35.75 (54)     | 35.5 (54)       |