

**Weld Set Reference: Z223725**  
**Power Wave® 300C (Metric units)**



(§) Requires Advanced machine

| Process type             | Wire type                 | Wire size                            | Waveform                             | Gas Type                             | Workpoint Limits    | Wave Control 1      | Wave Control 2 | Wave Control 3 |
|--------------------------|---------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---------------------|---------------------|----------------|----------------|
| GMAW                     | Manual CV                 | None                                 | CV                                   | Unspecified                          | 10.0 to 45.0 V      | Pinch -10.0 to 10.0 | N/A            | N/A            |
|                          | 3XX Stainless             | 0.8 mm                               | CV                                   | 98% Ar 2% CO <sub>2</sub>            | 2.54 to 20.32 m/min | Pinch -10.0 to 10.0 | N/A            | N/A            |
|                          |                           |                                      |                                      | 98% Ar 2% O <sub>2</sub>             |                     |                     |                |                |
|                          |                           |                                      |                                      | Ar-Mix                               |                     |                     |                |                |
|                          |                           |                                      | Precision Pulse™                     | 62.2% Ar 35% He 2.8% CO <sub>2</sub> | 2.54 to 15.24 m/min |                     |                |                |
|                          |                           |                                      |                                      | 98% Ar 2% CO <sub>2</sub>            |                     |                     |                |                |
|                          |                           |                                      |                                      | 98% Ar 2% O <sub>2</sub>             |                     |                     |                |                |
|                          |                           |                                      |                                      | Ar-Mix                               |                     |                     |                |                |
|                          |                           |                                      |                                      | Tri-Mix (Ar)                         |                     |                     |                |                |
|                          |                           |                                      |                                      | 98% Ar 2% CO <sub>2</sub>            |                     |                     |                |                |
|                          |                           |                                      | Pulse                                | 98% Ar 2% O <sub>2</sub>             | 2.54 to 20.32 m/min |                     |                |                |
|                          |                           |                                      |                                      | Ar-Mix                               |                     |                     |                |                |
|                          |                           |                                      |                                      | 98% Ar 2% CO <sub>2</sub>            |                     |                     |                |                |
|                          |                           | Rapid X® (§)                         | 98% Ar 2% CO <sub>2</sub>            | 3.81 to 15.24 m/min                  |                     |                     |                |                |
|                          |                           |                                      | 98% Ar 2% O <sub>2</sub>             |                                      |                     |                     |                |                |
|                          |                           |                                      | Ar-Mix                               |                                      |                     |                     |                |                |
|                          |                           | RapidArc®                            | 98% Ar 2% CO <sub>2</sub>            | 3.18 to 8.89 m/min                   |                     |                     |                |                |
|                          |                           |                                      | 98% Ar 2% O <sub>2</sub>             |                                      |                     |                     |                |                |
|                          |                           |                                      | Ar-Mix                               |                                      |                     |                     |                |                |
|                          |                           | Smart Pulse® (§)                     | 62.2% Ar 35% He 2.8% CO <sub>2</sub> | 3.18 to 10.16 m/min                  |                     |                     |                |                |
|                          |                           |                                      | 98% Ar 2% CO <sub>2</sub>            |                                      |                     |                     |                |                |
|                          |                           |                                      | 98% Ar 2% O <sub>2</sub>             |                                      |                     |                     |                |                |
|                          |                           |                                      | Ar-Mix                               |                                      |                     |                     |                |                |
|                          |                           |                                      | Tri-Mix (Ar)                         |                                      |                     |                     |                |                |
|                          |                           |                                      | 98% Ar 2% CO <sub>2</sub>            |                                      |                     |                     |                |                |
|                          | STT® (Root Pass) (§)      | 62.2% Ar 35% He 2.8% CO <sub>2</sub> | 3.18 to 8.89 m/min                   |                                      |                     |                     |                |                |
|                          |                           | 98% Ar 2% CO <sub>2</sub>            |                                      |                                      |                     |                     |                |                |
|                          |                           | 98% Ar 2% O <sub>2</sub>             |                                      |                                      |                     |                     |                |                |
|                          |                           | Ar-Mix                               |                                      |                                      |                     |                     |                |                |
|                          | 1.0 mm                    | CV                                   | 98% Ar 2% CO <sub>2</sub>            | 2.54 to 17.53 m/min                  |                     |                     |                |                |
| 98% Ar 2% O <sub>2</sub> |                           |                                      |                                      |                                      |                     |                     |                |                |
| Ar-Mix                   |                           |                                      |                                      |                                      |                     |                     |                |                |
| Precision Pulse™         |                           | 62.2% Ar 35% He 2.8% CO <sub>2</sub> | 1.52 to 15.24 m/min                  |                                      |                     |                     |                |                |
|                          |                           | 98% Ar 2% CO <sub>2</sub>            |                                      |                                      |                     |                     |                |                |
|                          |                           | 98% Ar 2% O <sub>2</sub>             |                                      |                                      |                     |                     |                |                |
|                          |                           | Ar-Mix                               |                                      |                                      |                     |                     |                |                |
|                          |                           | Tri-Mix (Ar)                         |                                      |                                      |                     |                     |                |                |
|                          |                           | 98% Ar 2% CO <sub>2</sub>            |                                      |                                      |                     |                     |                |                |
| Pulse                    |                           | 98% Ar 2% O <sub>2</sub>             | 2.54 to 20.32 m/min                  |                                      |                     |                     |                |                |
|                          |                           | Ar-Mix                               |                                      |                                      |                     |                     |                |                |
|                          |                           | 98% Ar 2% CO <sub>2</sub>            |                                      |                                      |                     |                     |                |                |
| Rapid X® (§)             | 98% Ar 2% CO <sub>2</sub> | 2.54 to 15.24 m/min                  |                                      |                                      |                     |                     |                |                |
|                          | 98% Ar 2% O <sub>2</sub>  |                                      |                                      |                                      |                     |                     |                |                |
|                          | Ar-Mix                    |                                      |                                      |                                      |                     |                     |                |                |
| RapidArc®                | 98% Ar 2% CO <sub>2</sub> | 2.54 to 20.32 m/min                  |                                      |                                      |                     |                     |                |                |
|                          | 98% Ar 2% O <sub>2</sub>  |                                      |                                      |                                      |                     |                     |                |                |
|                          | Ar-Mix                    |                                      |                                      |                                      |                     |                     |                |                |

**Weld Set Reference: Z223725**  
**Power Wave® 300C (Metric units)**



(§) Requires Advanced machine

| Process type             | Wire type                            | Wire size                 | Waveform                             | Gas Type                             | Workpoint Limits        | Wave Control 1          | Wave Control 2      | Wave Control 3     |
|--------------------------|--------------------------------------|---------------------------|--------------------------------------|--------------------------------------|-------------------------|-------------------------|---------------------|--------------------|
| GMAW                     | 3XX Stainless                        | 1.0 mm                    | Smart Pulse® (§)                     | 62.2% Ar 35% He 2.8% CO <sub>2</sub> | 2.54 to 19.30 m/min     | UltimArc® -10.0 to 10.0 | N/A                 | N/A                |
|                          |                                      |                           |                                      | 98% Ar 2% CO <sub>2</sub>            |                         |                         |                     |                    |
|                          |                                      |                           |                                      | 98% Ar 2% O <sub>2</sub>             |                         |                         |                     |                    |
|                          |                                      |                           |                                      | Ar-Mix                               |                         |                         |                     |                    |
|                          |                                      |                           | Tri-Mix (Ar)                         |                                      |                         |                         |                     |                    |
|                          |                                      |                           | 62.2% Ar 35% He 2.8% CO <sub>2</sub> |                                      |                         |                         |                     |                    |
|                          |                                      | STT® (Root Pass) (§)      | 98% Ar 2% CO <sub>2</sub>            | 2.54 to 7.62 m/min                   |                         |                         |                     |                    |
|                          |                                      |                           | 98% Ar 2% O <sub>2</sub>             |                                      |                         |                         |                     |                    |
|                          |                                      |                           | Ar-Mix                               |                                      |                         |                         |                     |                    |
|                          |                                      |                           | Tri-Mix (Ar)                         |                                      |                         |                         |                     |                    |
|                          |                                      |                           | 98% Ar 2% CO <sub>2</sub>            |                                      |                         |                         |                     |                    |
|                          |                                      |                           | 98% Ar 2% O <sub>2</sub>             |                                      |                         |                         |                     |                    |
|                          | 1.2 mm                               | CV                        | 98% Ar 2% CO <sub>2</sub>            | 1.91 to 14.61 m/min                  | Pinch -10.0 to 10.0     |                         |                     |                    |
|                          |                                      |                           | 98% Ar 2% O <sub>2</sub>             |                                      |                         |                         |                     |                    |
|                          |                                      |                           | Ar-Mix                               |                                      |                         |                         |                     |                    |
|                          |                                      | Precision Pulse™          | 62.2% Ar 35% He 2.8% CO <sub>2</sub> | 1.27 to 11.18 m/min                  | UltimArc® -10.0 to 10.0 |                         |                     |                    |
|                          |                                      |                           | 98% Ar 2% CO <sub>2</sub>            |                                      |                         |                         |                     |                    |
|                          |                                      |                           | 98% Ar 2% O <sub>2</sub>             |                                      |                         |                         |                     |                    |
|                          | Ar-Mix                               |                           |                                      |                                      |                         |                         |                     |                    |
|                          | Pulse                                | Tri-Mix (Ar)              | 1.91 to 11.81 m/min                  |                                      |                         |                         |                     |                    |
|                          |                                      | 98% Ar 2% CO <sub>2</sub> |                                      |                                      |                         |                         |                     |                    |
|                          |                                      | 98% Ar 2% O <sub>2</sub>  |                                      |                                      |                         |                         |                     |                    |
|                          | Rapid X® (§)                         | Ar-Mix                    | 2.54 to 15.24 m/min                  |                                      |                         |                         |                     |                    |
|                          |                                      | 98% Ar 2% CO <sub>2</sub> |                                      |                                      |                         |                         |                     |                    |
| 98% Ar 2% O <sub>2</sub> |                                      |                           |                                      |                                      |                         |                         |                     |                    |
| RapidArc®                | Ar-Mix                               | 2.54 to 13.46 m/min       |                                      |                                      |                         |                         |                     |                    |
|                          | 98% Ar 2% CO <sub>2</sub>            |                           |                                      |                                      |                         |                         |                     |                    |
|                          | 98% Ar 2% O <sub>2</sub>             |                           |                                      |                                      |                         |                         |                     |                    |
| Smart Pulse® (§)         | 62.2% Ar 35% He 2.8% CO <sub>2</sub> | 2.29 to 5.72 m/min        |                                      |                                      |                         |                         |                     |                    |
|                          | 98% Ar 2% CO <sub>2</sub>            |                           |                                      |                                      |                         |                         |                     |                    |
|                          | 98% Ar 2% O <sub>2</sub>             |                           |                                      |                                      |                         |                         |                     |                    |
|                          | Ar-Mix                               |                           |                                      |                                      |                         |                         |                     |                    |
| STT® (Root Pass) (§)     | Tri-Mix (Ar)                         | 2.29 to 6.35 m/min        |                                      |                                      |                         |                         |                     |                    |
|                          | 62.2% Ar 35% He 2.8% CO <sub>2</sub> |                           |                                      |                                      |                         |                         |                     |                    |
|                          | 98% Ar 2% CO <sub>2</sub>            |                           |                                      |                                      |                         |                         |                     |                    |
|                          | 98% Ar 2% O <sub>2</sub>             |                           |                                      |                                      |                         |                         |                     |                    |
| Al 4XXX                  | 1.0 mm                               | AC Precision Pulse™ (§)   | 100% Ar                              | 3.81 to 17.78 m/min                  | UltimArc® -10.0 to 10.0 |                         |                     |                    |
|                          |                                      | CV                        |                                      |                                      |                         | 3.18 to 20.32 m/min     | Pinch -10.0 to 10.0 |                    |
|                          |                                      | Precision Pulse™          |                                      |                                      |                         |                         |                     |                    |
|                          | 1.2 mm                               | AC Precision Pulse™ (§)   |                                      | 3.18 to 12.70 m/min                  | UltimArc® -10.0 to 10.0 |                         |                     |                    |
|                          |                                      | CV                        |                                      |                                      |                         | 3.18 to 14.99 m/min     | Pinch -10.0 to 10.0 |                    |
|                          |                                      | Precision Pulse™          |                                      |                                      |                         |                         |                     |                    |
|                          | 1.6 mm                               | AC Precision Pulse™ (§)   |                                      | 2.16 to 15.24 m/min                  | UltimArc® -10.0 to 10.0 |                         |                     |                    |
|                          |                                      | CV                        |                                      |                                      |                         | 2.54 to 8.89 m/min      | Pinch -10.0 to 10.0 |                    |
|                          |                                      | Precision Pulse™          |                                      |                                      |                         |                         |                     | 1.91 to 8.64 m/min |

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**Power Wave® 300C (Metric units)**



(§) Requires Advanced machine

| Process type               | Wire type                  | Wire size | Waveform                   | Gas Type                   | Workpoint Limits           | Wave Control 1          | Wave Control 2 | Wave Control 3 |
|----------------------------|----------------------------|-----------|----------------------------|----------------------------|----------------------------|-------------------------|----------------|----------------|
| GMAW                       | Al 5XXX                    | 1.0 mm    | AC Precision Pulse™ (§)    | 100% Ar                    | 3.18 to 17.78 m/min        | UltimArc® -10.0 to 10.0 | N/A            | N/A            |
|                            |                            |           | CV                         |                            | 4.45 to 19.05 m/min        | Pinch -10.0 to 10.0     |                |                |
|                            |                            |           | Precision Pulse™           |                            | 3.81 to 20.32 m/min        | UltimArc® -10.0 to 10.0 |                |                |
|                            |                            | 1.2 mm    | AC Precision Pulse™ (§)    |                            | 2.54 to 17.78 m/min        |                         |                |                |
|                            |                            |           | CV                         |                            | 3.18 to 19.05 m/min        |                         |                |                |
|                            |                            |           | Precision Pulse™           |                            | 2.16 to 17.78 m/min        | UltimArc® -10.0 to 10.0 |                |                |
|                            |                            | 1.6 mm    | AC Precision Pulse™ (§)    |                            | 2.54 to 10.16 m/min        |                         |                |                |
|                            |                            |           | CV                         |                            | 3.18 to 11.94 m/min        |                         |                |                |
|                            |                            |           | Precision Pulse™           |                            | 2.54 to 10.16 m/min        | UltimArc® -10.0 to 10.0 |                |                |
|                            | Copper                     | 1.0 mm    | Pulse                      | 75% Ar 25% He              | 1.91 to 12.70 m/min        | UltimArc® -10.0 to 10.0 | N/A            | N/A            |
|                            |                            |           |                            | Ar-Mix                     |                            |                         |                |                |
|                            |                            | 1.2 mm    |                            | 75% Ar 25% He              |                            |                         |                |                |
|                            |                            |           |                            | Ar-Mix                     |                            |                         |                |                |
|                            | MCW Steel                  | 1.2 mm    | CV                         | 75% Ar 25% CO <sub>2</sub> | 2.54 to 16.51 m/min        | Pinch -10.0 to 10.0     | N/A            | N/A            |
|                            |                            |           |                            | 80% Ar 20% CO <sub>2</sub> | 2.54 to 14.86 m/min        |                         |                |                |
|                            |                            |           |                            | 82% Ar 18% CO <sub>2</sub> |                            |                         |                |                |
|                            |                            |           |                            | 85% Ar 15% CO <sub>2</sub> |                            |                         |                |                |
|                            |                            |           |                            | 90% Ar 10% CO <sub>2</sub> |                            |                         |                |                |
|                            |                            |           |                            | 92% Ar 8% CO <sub>2</sub>  |                            |                         |                |                |
|                            |                            |           | Ar-Mix                     | 1.91 to 13.59 m/min        |                            |                         |                |                |
|                            |                            |           | Precision Pulse™           |                            | 80% Ar 20% CO <sub>2</sub> |                         |                |                |
|                            |                            |           |                            |                            | 82% Ar 18% CO <sub>2</sub> |                         |                |                |
|                            |                            |           |                            |                            | 85% Ar 15% CO <sub>2</sub> |                         |                |                |
|                            |                            |           |                            |                            | 90% Ar 10% CO <sub>2</sub> |                         |                |                |
|                            |                            |           |                            |                            | 92% Ar 8% CO <sub>2</sub>  |                         |                |                |
|                            |                            |           |                            | Ar-Mix                     | 1.91 to 11.94 m/min        |                         |                |                |
|                            |                            |           | Pulse                      | 80% Ar 20% CO <sub>2</sub> |                            |                         |                |                |
|                            |                            |           |                            | 82% Ar 18% CO <sub>2</sub> |                            |                         |                |                |
| 85% Ar 15% CO <sub>2</sub> |                            |           |                            |                            |                            |                         |                |                |
| 90% Ar 10% CO <sub>2</sub> |                            |           |                            |                            |                            |                         |                |                |
| 92% Ar 8% CO <sub>2</sub>  |                            |           |                            |                            |                            |                         |                |                |
| Ar-Mix                     |                            |           |                            | 1.91 to 20.32 m/min        |                            |                         |                |                |
| Rapid X® (§)               |                            |           | 80% Ar 20% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |           | 82% Ar 18% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |           | 85% Ar 15% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |           | 90% Ar 10% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |           | 92% Ar 8% CO <sub>2</sub>  |                            |                            |                         |                |                |
|                            |                            |           | Ar-Mix                     | 2.54 to 12.95 m/min        |                            |                         |                |                |
| RapidArc®                  |                            |           | 80% Ar 20% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |           | 82% Ar 18% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |           | 85% Ar 15% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            | 90% Ar 10% CO <sub>2</sub> |           |                            |                            |                            |                         |                |                |
|                            | 92% Ar 8% CO <sub>2</sub>  |           |                            |                            |                            |                         |                |                |
|                            | Ar-Mix                     |           |                            |                            |                            |                         |                |                |
| Smart Pulse® (§)           | 80% Ar 20% CO <sub>2</sub> |           |                            |                            |                            |                         |                |                |
|                            | 82% Ar 18% CO <sub>2</sub> |           |                            |                            |                            |                         |                |                |
|                            | 85% Ar 15% CO <sub>2</sub> |           |                            |                            |                            |                         |                |                |
|                            | 90% Ar 10% CO <sub>2</sub> |           |                            |                            |                            |                         |                |                |

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**Power Wave® 300C (Metric units)**



(§) Requires Advanced machine

| Process type               | Wire type                  | Wire size | Waveform                   | Gas Type                   | Workpoint Limits    | Wave Control 1          | Wave Control 2          | Wave Control 3 |
|----------------------------|----------------------------|-----------|----------------------------|----------------------------|---------------------|-------------------------|-------------------------|----------------|
| GMAW                       | MCW Steel                  | 1.2 mm    | Smart Pulse® (§)           | 92% Ar 8% CO <sub>2</sub>  | 2.54 to 12.95 m/min | UltimArc® -10.0 to 10.0 | N/A                     | N/A            |
|                            |                            |           |                            | Ar-Mix                     |                     |                         |                         |                |
|                            |                            |           | STT® (Root Pass) (§)       | 75% Ar 25% CO <sub>2</sub> | 2.29 to 5.72 m/min  |                         |                         |                |
|                            |                            |           |                            | 80% Ar 20% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |           |                            | 82% Ar 18% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |           |                            | 85% Ar 15% CO <sub>2</sub> |                     |                         |                         |                |
|                            | Ar-Mix                     |           |                            |                            |                     |                         |                         |                |
|                            | NiCr Alloy                 | 1.0 mm    | Pulse                      | 100% Ar                    | 1.91 to 20.32 m/min | UltimArc® -10.0 to 10.0 | N/A                     | N/A            |
|                            |                            |           |                            | 75% Ar 25% He              |                     |                         |                         |                |
|                            |                            |           |                            | 80% Ar 20% He              |                     |                         |                         |                |
|                            |                            |           |                            | Ar/He-Mix                  |                     |                         |                         |                |
|                            |                            | 1.2 mm    |                            | Tri-Mix (Ar)               | 1.91 to 15.24 m/min |                         |                         |                |
|                            |                            |           |                            | 100% Ar                    |                     |                         |                         |                |
|                            |                            |           |                            | 75% Ar 25% He              |                     |                         |                         |                |
|                            |                            |           |                            | 80% Ar 20% He              |                     |                         |                         |                |
|                            | Si Bronze                  | 1.0 mm    | RapidArc®                  | 100% Ar                    | 2.54 to 11.43 m/min | UltimArc® -10.0 to 10.0 | N/A                     | N/A            |
|                            |                            |           | STT® Braze (§)             |                            | 3.05 to 8.89 m/min  |                         |                         |                |
|                            |                            | 1.2 mm    | RapidArc®                  |                            | 1.91 to 10.16 m/min |                         |                         |                |
|                            |                            |           | STT® Braze (§)             |                            | 2.29 to 7.62 m/min  |                         |                         |                |
|                            | Steel                      | 0.8 mm    | AC STT® (§)                | 75% Ar 25% CO <sub>2</sub> | 2.54 to 8.89 m/min  | Balance 0 to 100 %      | UltimArc® -10.0 to 10.0 | N/A            |
|                            |                            |           |                            | 80% Ar 20% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |           |                            | 82% Ar 18% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |           |                            | 85% Ar 15% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |           |                            | 90% Ar 10% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |           |                            | 92% Ar 8% CO <sub>2</sub>  |                     |                         |                         |                |
|                            |                            |           | Ar-Mix                     | 3.18 to 20.32 m/min        | Pinch -10.0 to 10.0 |                         |                         |                |
|                            |                            |           | 100% CO <sub>2</sub>       |                            |                     |                         |                         |                |
|                            |                            |           | 75% Ar 25% CO <sub>2</sub> |                            |                     |                         |                         |                |
| 80% Ar 20% CO <sub>2</sub> |                            |           |                            |                            |                     |                         |                         |                |
| 82% Ar 18% CO <sub>2</sub> |                            |           |                            |                            |                     |                         |                         |                |
| 85% Ar 15% CO <sub>2</sub> |                            |           |                            |                            |                     |                         |                         |                |
| 90% Ar 10% CO <sub>2</sub> |                            |           | 3.18 to 15.24 m/min        | UltimArc® -10.0 to 10.0    |                     |                         |                         |                |
| 92% Ar 8% CO <sub>2</sub>  |                            |           |                            |                            |                     |                         |                         |                |
| Ar-Mix                     |                            |           |                            |                            |                     |                         |                         |                |
| 80% Ar 20% CO <sub>2</sub> |                            |           |                            |                            |                     |                         |                         |                |
| 82% Ar 18% CO <sub>2</sub> |                            |           |                            |                            |                     |                         |                         |                |
| 85% Ar 15% CO <sub>2</sub> |                            |           |                            |                            |                     |                         |                         |                |
| 90% Ar 10% CO <sub>2</sub> |                            |           | 2.54 to 15.24 m/min        |                            |                     |                         |                         |                |
| 92% Ar 8% CO <sub>2</sub>  |                            |           |                            |                            |                     |                         |                         |                |
| Ar-Mix                     |                            |           |                            |                            |                     |                         |                         |                |
| 80% Ar 20% CO <sub>2</sub> |                            |           |                            |                            |                     |                         |                         |                |
| Pulse                      | 82% Ar 18% CO <sub>2</sub> |           |                            |                            |                     |                         |                         |                |
|                            | 85% Ar 15% CO <sub>2</sub> |           |                            |                            |                     |                         |                         |                |
|                            | 90% Ar 10% CO <sub>2</sub> |           |                            |                            |                     |                         |                         |                |
|                            | 92% Ar 8% CO <sub>2</sub>  |           |                            |                            |                     |                         |                         |                |

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| Process type               | Wire type                  | Wire size            | Waveform                   | Gas Type                   | Workpoint Limits    | Wave Control 1          | Wave Control 2          | Wave Control 3 |
|----------------------------|----------------------------|----------------------|----------------------------|----------------------------|---------------------|-------------------------|-------------------------|----------------|
| GMAW                       | Steel                      | 0.8 mm               | Pulse                      | 92% Ar 8% CO <sub>2</sub>  | 2.54 to 15.24 m/min | UltimArc® -10.0 to 10.0 | N/A                     | N/A            |
|                            |                            |                      |                            | Ar-Mix                     |                     |                         |                         |                |
|                            |                            |                      | Rapid X® (§)               | 80% Ar 20% CO <sub>2</sub> | 1.91 to 20.32 m/min |                         |                         |                |
|                            |                            |                      |                            | 82% Ar 18% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |                      |                            | 85% Ar 15% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |                      |                            | 90% Ar 10% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |                      |                            | 92% Ar 8% CO <sub>2</sub>  |                     |                         |                         |                |
|                            |                            |                      |                            | Ar-Mix                     |                     |                         |                         |                |
|                            |                            |                      | RapidArc®                  | 80% Ar 20% CO <sub>2</sub> | 1.91 to 20.32 m/min |                         |                         |                |
|                            |                            |                      |                            | 82% Ar 18% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |                      |                            | 85% Ar 15% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |                      |                            | 90% Ar 10% CO <sub>2</sub> |                     |                         |                         |                |
|                            |                            |                      |                            | 92% Ar 8% CO <sub>2</sub>  |                     |                         |                         |                |
|                            |                            |                      |                            | Ar-Mix                     |                     |                         |                         |                |
|                            |                            | Smart Pulse® (§)     | 80% Ar 20% CO <sub>2</sub> | 3.18 to 20.32 m/min        |                     |                         |                         |                |
|                            |                            |                      | 82% Ar 18% CO <sub>2</sub> |                            |                     |                         |                         |                |
|                            |                            |                      | 85% Ar 15% CO <sub>2</sub> |                            |                     |                         |                         |                |
|                            |                            |                      | 90% Ar 10% CO <sub>2</sub> |                            |                     |                         |                         |                |
|                            |                            |                      | 92% Ar 8% CO <sub>2</sub>  |                            |                     |                         |                         |                |
|                            |                            |                      | Ar-Mix                     |                            |                     |                         |                         |                |
|                            |                            | STT® (Root Pass) (§) | 75% Ar 25% CO <sub>2</sub> | 3.18 to 10.16 m/min        |                     |                         |                         |                |
|                            |                            |                      | 80% Ar 20% CO <sub>2</sub> |                            |                     |                         |                         |                |
|                            |                            |                      | 82% Ar 18% CO <sub>2</sub> |                            |                     |                         |                         |                |
|                            |                            |                      | 85% Ar 15% CO <sub>2</sub> |                            |                     |                         |                         |                |
|                            |                            |                      | 90% Ar 10% CO <sub>2</sub> |                            |                     |                         |                         |                |
|                            |                            |                      | 92% Ar 8% CO <sub>2</sub>  |                            |                     |                         |                         |                |
|                            |                            | 1.0 mm               | AC STT® (§)                | 75% Ar 25% CO <sub>2</sub> | 1.91 to 6.35 m/min  | Balance 0 to 100 %      | UltimArc® -10.0 to 10.0 |                |
|                            |                            |                      |                            | 80% Ar 20% CO <sub>2</sub> |                     |                         |                         |                |
| 82% Ar 18% CO <sub>2</sub> |                            |                      |                            |                            |                     |                         |                         |                |
| 85% Ar 15% CO <sub>2</sub> |                            |                      |                            |                            |                     |                         |                         |                |
| 90% Ar 10% CO <sub>2</sub> |                            |                      |                            |                            |                     |                         |                         |                |
| 92% Ar 8% CO <sub>2</sub>  |                            |                      |                            |                            |                     |                         |                         |                |
| CV                         | Ar-Mix                     |                      | 2.54 to 15.62 m/min        | Pinch -10.0 to 10.0        | N/A                 |                         |                         |                |
|                            | 100% CO <sub>2</sub>       |                      |                            |                            |                     |                         |                         |                |
|                            | 75% Ar 25% CO <sub>2</sub> |                      |                            |                            |                     |                         |                         |                |
|                            | 80% Ar 20% CO <sub>2</sub> |                      |                            |                            |                     |                         |                         |                |
|                            | 82% Ar 18% CO <sub>2</sub> |                      |                            |                            |                     |                         |                         |                |
|                            | 85% Ar 15% CO <sub>2</sub> |                      |                            |                            |                     |                         |                         |                |
|                            | 90% Ar 10% CO <sub>2</sub> |                      |                            |                            |                     |                         |                         |                |
|                            | 92% Ar 8% CO <sub>2</sub>  |                      |                            |                            |                     |                         |                         |                |
| Ar-Mix                     |                            |                      |                            |                            |                     |                         |                         |                |
| Low Fume Pulse™ (§)        | 80% Ar 20% CO <sub>2</sub> | 1.91 to 20.70 m/min  | UltimArc® -10.0 to 10.0    |                            |                     |                         |                         |                |
|                            | Ar-Mix                     |                      |                            |                            |                     |                         |                         |                |
| Precision Pulse™           | 80% Ar 20% CO <sub>2</sub> | 1.91 to 14.61 m/min  | UltimArc® -10.0 to 10.0    |                            |                     |                         |                         |                |
|                            | 82% Ar 18% CO <sub>2</sub> |                      |                            |                            |                     |                         |                         |                |
|                            | 85% Ar 15% CO <sub>2</sub> |                      |                            |                            |                     |                         |                         |                |

**Weld Set Reference: Z223725**  
**Power Wave® 300C (Metric units)**



(§) Requires Advanced machine

| Process type               | Wire type                  | Wire size                 | Waveform                   | Gas Type                   | Workpoint Limits           | Wave Control 1          | Wave Control 2 | Wave Control 3 |
|----------------------------|----------------------------|---------------------------|----------------------------|----------------------------|----------------------------|-------------------------|----------------|----------------|
| GMAW                       | Steel                      | 1.0 mm                    | Precision Pulse™           | 90% Ar 10% CO <sub>2</sub> | 1.91 to 14.61 m/min        | UltimArc® -10.0 to 10.0 | N/A            | N/A            |
|                            |                            |                           |                            | 92% Ar 8% CO <sub>2</sub>  |                            |                         |                |                |
|                            |                            |                           |                            | Ar-Mix                     |                            |                         |                |                |
|                            |                            |                           | Pulse                      | 80% Ar 20% CO <sub>2</sub> | 2.54 to 15.24 m/min        |                         |                |                |
|                            |                            |                           |                            | 82% Ar 18% CO <sub>2</sub> |                            |                         |                |                |
|                            |                            |                           |                            | 85% Ar 15% CO <sub>2</sub> |                            |                         |                |                |
|                            |                            |                           |                            | 90% Ar 10% CO <sub>2</sub> |                            |                         |                |                |
|                            |                            |                           |                            | 92% Ar 8% CO <sub>2</sub>  |                            |                         |                |                |
|                            |                            |                           | Rapid X® (§)               | 80% Ar 20% CO <sub>2</sub> | 1.91 to 20.32 m/min        |                         |                |                |
|                            |                            |                           |                            | 82% Ar 18% CO <sub>2</sub> |                            |                         |                |                |
|                            |                            |                           |                            | 85% Ar 15% CO <sub>2</sub> |                            |                         |                |                |
|                            |                            |                           |                            | 90% Ar 10% CO <sub>2</sub> |                            |                         |                |                |
|                            |                            | 92% Ar 8% CO <sub>2</sub> |                            |                            |                            |                         |                |                |
|                            |                            | RapidArc®                 | 80% Ar 20% CO <sub>2</sub> | 2.54 to 18.80 m/min        |                            |                         |                |                |
|                            |                            |                           | 82% Ar 18% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |                           | 85% Ar 15% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |                           | 90% Ar 10% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |                           | 92% Ar 8% CO <sub>2</sub>  |                            |                            |                         |                |                |
|                            |                            | Smart Pulse® (§)          | 100% CO <sub>2</sub>       | 2.54 to 6.35 m/min         |                            |                         |                |                |
|                            |                            |                           | 75% Ar 25% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |                           | 80% Ar 20% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |                           | 82% Ar 18% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            |                           | 85% Ar 15% CO <sub>2</sub> |                            |                            |                         |                |                |
|                            |                            | STT® (Root Pass) (§)      | 80% Ar 20% CO <sub>2</sub> | 2.54 to 6.99 m/min         |                            |                         |                |                |
| 82% Ar 18% CO <sub>2</sub> |                            |                           |                            |                            |                            |                         |                |                |
| 85% Ar 15% CO <sub>2</sub> |                            |                           |                            |                            |                            |                         |                |                |
| 90% Ar 10% CO <sub>2</sub> |                            |                           |                            |                            |                            |                         |                |                |
| 92% Ar 8% CO <sub>2</sub>  |                            |                           |                            |                            |                            |                         |                |                |
| Ar-Mix                     |                            |                           |                            |                            |                            |                         |                |                |
| AC STT® (§)                | 75% Ar 25% CO <sub>2</sub> | 1.91 to 5.08 m/min        |                            |                            |                            |                         |                |                |
|                            | 80% Ar 20% CO <sub>2</sub> |                           |                            |                            |                            |                         |                |                |
|                            | 82% Ar 18% CO <sub>2</sub> |                           |                            |                            |                            |                         |                |                |
|                            | 85% Ar 15% CO <sub>2</sub> |                           |                            |                            |                            |                         |                |                |
|                            | 90% Ar 10% CO <sub>2</sub> |                           |                            |                            |                            |                         |                |                |
|                            | 92% Ar 8% CO <sub>2</sub>  |                           |                            |                            |                            |                         |                |                |
| CV                         | 100% CO <sub>2</sub>       | 2.54 to 11.56 m/min       | Pinch -10.0 to 10.0        | N/A                        |                            |                         |                |                |
|                            | 75% Ar 25% CO <sub>2</sub> | 2.54 to 12.83 m/min       |                            |                            |                            |                         |                |                |
|                            | 80% Ar 20% CO <sub>2</sub> | 2.54 to 10.92 m/min       |                            |                            |                            |                         |                |                |
|                            | 82% Ar 18% CO <sub>2</sub> |                           |                            |                            |                            |                         |                |                |
|                            | 85% Ar 15% CO <sub>2</sub> |                           |                            |                            |                            |                         |                |                |
| 1.2 mm                     | AC STT® (§)                | 1.91 to 5.08 m/min        | Balance 0 to 100 %         | UltimArc® -10.0 to 10.0    |                            |                         |                |                |
|                            |                            |                           |                            |                            | 75% Ar 25% CO <sub>2</sub> |                         |                |                |
|                            |                            |                           |                            |                            | 80% Ar 20% CO <sub>2</sub> |                         |                |                |
|                            |                            |                           |                            |                            | 82% Ar 18% CO <sub>2</sub> |                         |                |                |
|                            |                            |                           |                            |                            | 85% Ar 15% CO <sub>2</sub> |                         |                |                |
|                            |                            |                           |                            |                            | 90% Ar 10% CO <sub>2</sub> |                         |                |                |
| CV                         | 100% CO <sub>2</sub>       | 2.54 to 11.56 m/min       | Pinch -10.0 to 10.0        | N/A                        |                            |                         |                |                |
|                            | 75% Ar 25% CO <sub>2</sub> | 2.54 to 12.83 m/min       |                            |                            |                            |                         |                |                |
|                            | 80% Ar 20% CO <sub>2</sub> | 2.54 to 10.92 m/min       |                            |                            |                            |                         |                |                |
|                            | 82% Ar 18% CO <sub>2</sub> |                           |                            |                            |                            |                         |                |                |
|                            | 85% Ar 15% CO <sub>2</sub> |                           |                            |                            |                            |                         |                |                |

**Weld Set Reference: Z223725**  
**Power Wave® 300C (Metric units)**



(§) Requires Advanced machine

| Process type         | Wire type                  | Wire size           | Waveform            | Gas Type                   | Workpoint Limits    | Wave Control 1      | Wave Control 2          | Wave Control 3 |
|----------------------|----------------------------|---------------------|---------------------|----------------------------|---------------------|---------------------|-------------------------|----------------|
| GMAW                 | Steel                      | 1.2 mm              | CV                  | 90% Ar 10% CO <sub>2</sub> | 2.54 to 10.92 m/min | Pinch -10.0 to 10.0 | UltimArc® -10.0 to 10.0 | N/A            |
|                      |                            |                     |                     | 92% Ar 8% CO <sub>2</sub>  |                     |                     |                         |                |
|                      |                            |                     |                     | Ar-Mix                     |                     |                     |                         |                |
|                      |                            |                     | Low Fume Pulse™ (§) | 80% Ar 20% CO <sub>2</sub> | 1.52 to 17.78 m/min |                     |                         |                |
|                      |                            |                     |                     | Ar-Mix                     |                     |                     |                         |                |
|                      |                            |                     | Precision Pulse™    | 80% Ar 20% CO <sub>2</sub> | 1.91 to 14.10 m/min |                     |                         |                |
|                      |                            |                     |                     | 82% Ar 18% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 85% Ar 15% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 90% Ar 10% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 92% Ar 8% CO <sub>2</sub>  |                     |                     |                         |                |
|                      |                            |                     |                     | Ar-Mix                     |                     |                     |                         |                |
|                      |                            |                     | Pulse               | 80% Ar 20% CO <sub>2</sub> | 1.91 to 11.30 m/min |                     |                         |                |
|                      |                            |                     |                     | 82% Ar 18% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 85% Ar 15% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 90% Ar 10% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 92% Ar 8% CO <sub>2</sub>  |                     |                     |                         |                |
|                      |                            |                     |                     | Ar-Mix                     |                     |                     |                         |                |
|                      |                            |                     | Rapid X® (§)        | 80% Ar 20% CO <sub>2</sub> | 1.91 to 17.15 m/min |                     |                         |                |
|                      |                            |                     |                     | 82% Ar 18% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 85% Ar 15% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 90% Ar 10% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 92% Ar 8% CO <sub>2</sub>  |                     |                     |                         |                |
|                      |                            |                     |                     | Ar-Mix                     |                     |                     |                         |                |
|                      |                            |                     | RapidArc®           | 80% Ar 20% CO <sub>2</sub> | 1.91 to 16.26 m/min |                     |                         |                |
|                      |                            |                     |                     | 82% Ar 18% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 85% Ar 15% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 90% Ar 10% CO <sub>2</sub> |                     |                     |                         |                |
|                      |                            |                     |                     | 92% Ar 8% CO <sub>2</sub>  |                     |                     |                         |                |
| Ar-Mix               |                            |                     |                     |                            |                     |                     |                         |                |
| Smart Pulse® (§)     | 80% Ar 20% CO <sub>2</sub> | 2.54 to 12.57 m/min |                     |                            |                     |                     |                         |                |
|                      | 82% Ar 18% CO <sub>2</sub> |                     |                     |                            |                     |                     |                         |                |
|                      | 85% Ar 15% CO <sub>2</sub> |                     |                     |                            |                     |                     |                         |                |
|                      | 90% Ar 10% CO <sub>2</sub> |                     |                     |                            |                     |                     |                         |                |
|                      | 92% Ar 8% CO <sub>2</sub>  |                     |                     |                            |                     |                     |                         |                |
| STT® (Root Pass) (§) | 100% CO <sub>2</sub>       | 2.29 to 5.08 m/min  |                     |                            |                     |                     |                         |                |
|                      | 75% Ar 25% CO <sub>2</sub> | 2.29 to 5.72 m/min  |                     |                            |                     |                     |                         |                |
|                      | 80% Ar 20% CO <sub>2</sub> |                     |                     |                            |                     |                     |                         |                |
|                      | 82% Ar 18% CO <sub>2</sub> |                     |                     |                            |                     |                     |                         |                |
|                      | 85% Ar 15% CO <sub>2</sub> |                     |                     |                            |                     |                     |                         |                |
|                      | 90% Ar 10% CO <sub>2</sub> |                     |                     |                            |                     |                     |                         |                |
|                      | 92% Ar 8% CO <sub>2</sub>  |                     |                     |                            |                     |                     |                         |                |
| Ar-Mix               |                            |                     |                     |                            |                     |                     |                         |                |

**Weld Set Reference: Z223725**  
**Power Wave® 300C (Metric units)**



(§) Requires Advanced machine

| Process type           | Wire type     | Wire size | Waveform              | Gas Type                   | Workpoint Limits    | Wave Control 1            | Wave Control 2         | Wave Control 3            |
|------------------------|---------------|-----------|-----------------------|----------------------------|---------------------|---------------------------|------------------------|---------------------------|
| FCAW-S                 | Self-Shielded | None      | Self-Shielded         | No gas                     | 10.0 to 45.0 V      | Pinch -10.0 to 10.0       | N/A                    | N/A                       |
|                        | Manual CV     | None      | Gas-Shielded          | Unspecified                | 10.0 to 45.0 V      | Pinch -10.0 to 10.0       | N/A                    | N/A                       |
| FCAW-G                 | Steel         | 1.2 mm    | Gas-Shielded          | 100% CO <sub>2</sub>       | 4.45 to 15.24 m/min | Pinch -10.0 to 10.0       | N/A                    | N/A                       |
|                        |               |           |                       | 75% Ar 25% CO <sub>2</sub> |                     |                           |                        |                           |
|                        |               |           |                       | 80% Ar 20% CO <sub>2</sub> |                     |                           |                        |                           |
|                        |               | 1.4 mm    |                       | Ar-Mix                     | 3.81 to 12.70 m/min |                           |                        |                           |
|                        |               |           |                       | 100% CO <sub>2</sub>       |                     |                           |                        |                           |
|                        |               |           |                       | 75% Ar 25% CO <sub>2</sub> |                     |                           |                        |                           |
|                        |               | 1.6 mm    |                       | 80% Ar 20% CO <sub>2</sub> | 3.18 to 9.91 m/min  |                           |                        |                           |
|                        |               |           |                       | Ar-Mix                     |                     |                           |                        |                           |
|                        |               |           |                       | 100% CO <sub>2</sub>       | 3.18 to 9.14 m/min  |                           |                        |                           |
|                        |               |           |                       | 75% Ar 25% CO <sub>2</sub> |                     |                           |                        |                           |
|                        |               |           |                       | 80% Ar 20% CO <sub>2</sub> |                     |                           |                        |                           |
|                        |               |           |                       | Ar-Mix                     |                     |                           |                        |                           |
| Gouge                  | Carbon Arc    | N/A       | Arc Gouge             | No gas                     | 60 to 350 A         | N/A                       | N/A                    | N/A                       |
| GTAW                   | GTAW          | N/A       | HF TIG (§)            | Helium, Argon              | 5 to 350 A          | N/A                       | N/A                    | N/A                       |
|                        |               |           | Touch Start           |                            |                     | Frequency 0.3 to 35.6 Hz  | Background 20 to 100 % |                           |
|                        |               |           | HF TIG Pulse (§)      |                            | 10 to 350 A         | AC Frequency 50 to 200 Hz | AC Balance 35 to 85 %  | DC Offset -30 to 30 %     |
|                        |               |           | Touch Start TIG Pulse |                            |                     |                           |                        |                           |
|                        |               |           | HF AC TIG (§)         |                            |                     |                           |                        |                           |
| Touch Start AC TIG (§) |               |           |                       |                            |                     |                           |                        |                           |
| SMAW                   | Stick         | N/A       | AC SMAW (§)           | No gas                     | 15 to 350 A         | Arc Force -10.0 to 10.0   | Hot Start 0.0 to 10.0  | AC Frequency 20 to 100 Hz |
|                        |               |           | Crisp (EXX10)         |                            |                     |                           |                        | N/A                       |
|                        |               |           | DCEN SMAW (§)         |                            |                     |                           |                        |                           |
|                        |               |           | Soft (EXX18)          |                            |                     |                           |                        |                           |
|                        |               |           | Stainless (E3XX)      |                            |                     |                           |                        |                           |