

# FRONIUS AGILO TL

/ The compact central inverter for straightforward installation, easy maintenance and maximum yields.



/ PC board replacement process



/ Transport technology



/ Smart Grid Ready



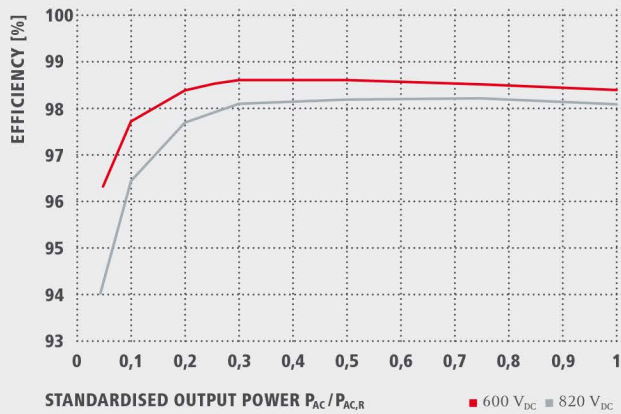
/ The Fronius Agilo TL in the 360 kVA and 460 kVA power categories is a powerful central inverter for large-scale systems. Impressively low installation and operating costs are delivered through the compact dimensions and clever system design inherent to this inverter series. Furthermore, the Fronius Agilo TL is the only inverter series in its power category that can be fully installed and maintained by the installer. Efficient, robust and a long service life - all in one device.

## TECHNICAL DATA FRONIUS AGILO TL INDOOR / OUTDOOR

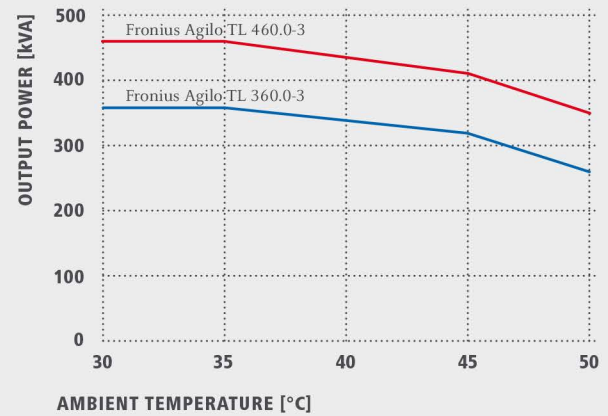
| INPUT DATA  | AGILO TL 360.0-3   | AGILO TL 460.0-3          |
|---|--|---------------------------|
| Max. input current ( $I_{dc \max}$ )                            | 730 A  | 782 A                     |
| Min. input voltage ( $U_{dc \min}$ )                            | 505 V  | 600 V                     |
| Max. array short circuit current                                | 1,095 A  | 1,173 A                   |
| Feed-in start voltage ( $U_{dc \text{ start}}$ )                | 530 V  | 625 V                     |
| Nominal input voltage ( $U_{dc,r}$ )                            | 505 V  | 600 V                     |
| Max. input voltage ( $U_{dc \max}$ )                            | 1,000 V  |                           |
| MPP voltage range ( $U_{mpp \min} - U_{mpp \max}$ )             | 505 - 820 V  | 600 - 820 V               |
| Number MPP-Tracker  | 1  |                           |
| Number of DC connections  | 6 (maximum 200 A per DC connection)  |                           |
| OUTPUT DATA   | AGILO TL 360.0-3   | AGILO TL 460.0-3          |
| AC nominal output ( $P_{ac,r}$ )                                | 360 kVA  | 460 kVA                   |
| Max. output power (up to 35 °C ambient temperature)             | 360 kVA  | 460 kVA                   |
| AC output current ( $I_{ac \text{ nom}}$ )                      | 629.8 A  | 664.0 A                   |
| Grid connection (Output voltage)                                | 3 - 330 V (+30 % / -15 %)  | 3 - 400 V (+15 % / -25 %) |
| Frequency (Frequency range)                                     | 50 Hz / 60 Hz (45 - 65 Hz)   |                           |
| Total harmonic distortion (50 Hz / 60 Hz)                       | < 1.8 % / < 3.0 %  |                           |
| Power factor ( $\cos \phi_{ac,r}$ )                             | 0.8 - 1 ind. / cap. <sup>1)</sup>  |                           |
| GENERAL DATA  | AGILO TL 360.0-3   | AGILO TL 460.0-3          |
| Dimensions (height x width x depth)                             | 1,970 x 1,150 x 775 mm (2,230 x 1,150 x 1,055 mm) <sup>2)</sup>  |                           |
| Weight  | 615 kg (660 kg) <sup>2)</sup>  |                           |
| Degree of protection Agilo TL Indoor (electronics compartment)  | IP 40 (IP 55)  |                           |
| Degree of protection Agilo TL Outdoor (electronics compartment) | IP 44 (IP 55)  |                           |
| Protection class  | 1  |                           |
| Overvoltage category (DC / AC) <sup>3)</sup>                    | 2 / 3  |                           |
| Overvoltage protection (DC / AC)                                | Type 1 and Type 2 integrated   |                           |
| Inverter design   | External transformer, AC parallel connection not possible  |                           |
| Cooling   | Regulated air cooling  |                           |
| Installation  | Indoor and outdoor installation  |                           |
| Ambient temperature range                                       | -20 °C - +50 °C  |                           |
| Permitted humidity  | 95 %   |                           |
| Max. altitude   | 3,000 m (unrestricted voltage range)   |                           |
| DC connection technology  | Direct terminal lug (V-type terminal) or cable lugs (M12) (6x 70 - 240 mm <sup>2</sup> ) <sup>4)</sup> |                           |
| AC connection technology  | 2x max. 240 mm <sup>2</sup> cable lugs (M12) per phase <sup>5)</sup>                                   |                           |
| EMC   | A  |                           |
| Certificates and compliance with standards                      | Depends on local regulations   |                           |

<sup>1)</sup> Depending on country setup <sup>2)</sup> This applies to Fronius Agilo TL Outdoor <sup>3)</sup> Testing to IEC 61209-1 <sup>4)</sup> Copper and aluminium are connectable <sup>5)</sup> Dielectric strength 1.8 / 3 kV.  
More information about inverter availability in your country can be found at [www.fronius.com](http://www.fronius.com).

## EFFICIENCY CURVE FRONIUS AGILO TL



## DERATING FRONIUS AGILO TL



## TECHNICAL DATA FRONIUS AGILO TL INDOOR / OUTDOOR

| EFFICIENCY                                 | AGILO TL 360.0-3 | AGILO TL 460.0-3 |
|--|------------------|------------------|
| Max. efficiency                            | 98.5 %           | 98.6 %           |
| Europ. efficiency (η <sub>EU</sub> )       | 98.3 %           | 98.4 %           |
| η at 5 % P <sub>ac,r</sub> <sup>1)</sup>   | 96.5 / 92.0 %    | 96.3 / 94.0 %    |
| η at 10 % P <sub>ac,r</sub> <sup>1)</sup>  | 97.5 / 95.7 %    | 97.7 / 96.4 %    |
| η at 20 % P <sub>ac,r</sub> <sup>1)</sup>  | 98.3 / 97.2 %    | 98.4 / 97.7 %    |
| η at 25 % P <sub>ac,r</sub> <sup>1)</sup>  | 98.4 / 97.4 %    | 98.5 / 97.9 %    |
| η at 30 % P <sub>ac,r</sub> <sup>1)</sup>  | 98.4 / 97.6 %    | 98.6 / 98.1 %    |
| η at 50 % P <sub>ac,r</sub> <sup>1)</sup>  | 98.5 / 97.9 %    | 98.6 / 98.2 %    |
| η at 75 % P <sub>ac,r</sub> <sup>1)</sup>  | 98.4 / 97.9 %    | 98.5 / 98.2 %    |
| η at 100 % P <sub>ac,r</sub> <sup>1)</sup> | 98.2 / 97.7 %    | 98.4 / 98.1 %    |
| MPP adaptation efficiency                  | > 99.9 %         |                  |

| PROTECTION DEVICES        | AGILO TL 360.0-3   | AGILO TL 460.0-3 |
|---------------------------|--|------------------|
| DC insulation measurement | Yes, warning or shutdown <sup>2)</sup> at R <sub>ISO</sub> < 40 kΩ |                  |
| Overload behaviour        | Operating point shift, power limitation                            |                  |
| DC disconnecter           | Included   |                  |
| AC switch-disconnector    | Included   |                  |

| INTERFACES                                   | AGILO TL 360.0-3  | AGILO TL 460.0-3 |
|--|---|------------------|
| 2x RS422 (RJ45 socket)                       | Fronius Solar Net, interface protocol                           |                  |
| Optionally with Fronius Datamanager Box 2.0: |   |                  |
| WLAN / Ethernet LAN                          | Fronius Solar.web, Modbus TCP SunSpec, Fronius Solar API (JSON) |                  |
| 6 inputs and 4 digital inputs/outputs        | Interface to ripple control receiver                            |                  |
| Datalogger and web server                    | Included  |                  |
| RS-485                                       | Modbus RTU SunSpec or meter connection                          |                  |

<sup>1)</sup> And at U<sub>mpp</sub> min = U<sub>dc,r</sub> / U<sub>mpp</sub> max

<sup>2)</sup> Depends on country setup

Note: Connection to grounded modules is not possible with the Fronius Agilo TL.

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