Trinasolar

CASE STUDY

# Sapphire Group
# Lahore, Pakistan

## OVERVIEW:

Many commercial and industrial (C&I) companies in Pakistan are adding solar, because they want to reduce their dependence on electricity from the grid and from diesel or gas generators.

**SIZE: 75 kW**
**SYSTEM TYPE:**
**Rooftop**
**Grid-connected**

**COMMERCIAL OPERATION DATE:**
**28 December 2020**

**DEVELOPER:**
**Smart Home Solutions**

**MODULES:**
**185 Trina Solar Duomax TSM-DEG15M.20(II) 405W**

**$CO_2$ SAVINGS:**
**38.5 tons per year**

## SITUATION

Sapphire Group, a large industrial conglomerate in Pakistan involved in industries including textiles, wanted to install solar panels on the rooftop of one of its Lahore locations. It contracted Smart Home Solutions, which has installed solar systems for many high-end residential and C&I projects. Smart Home Solutions has positioned itself in the market as a reliable service provider that uses high-quality products.

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## SOLUTION

There was limited roof-space on Sapphire Group's site in Lahore, but Smart Home Solutions maximized the amount of power produced from the fixed-tilt rooftop installation by using high power modules from Trina Solar. These were 405W Trina Solar Duomax TSM-DEG15M.20(II) modules that use Mono PERC, half-cut cell and multi-busbar technologies. These modules were also chosen because they are double-glass, so designed for hot and harsh weather conditions, and come with extended warranties.

## RESULTS

The rooftop solar installation has allowed the Sapphire Group site in Lahore to significantly reduce its electricity bills. The rooftop solar installation is now meeting more than 90% of the site's electricity needs. On sunny days the amount of electricity produced actually exceeds the amount of electricity consumed, so the excess electricity is fed into the grid. Commercial and industrial companies in Pakistan that have a three-phase meter can have net metering which means selling electricity to the grid.