



CITF
PA18-039

AT system



AT SYSTEM PRODUCT INTRODUCTION

Applicant Name:

Hilti (Hong Kong) Limited

Product Name:

Adaptive Torque System (AT System)

Specification :



Core Functions:

- The AT system delivers productive and safer impact-based anchoring and bolting

Technology Used:

- Adaptive Torque Control System

Construction Process involved:

- Anchor and Bolting Installation

Key Improvement in Construction Process:

- Productivity
- Quality Assurance
- Safety

Job Reference:

- HKAA Airport Project, 2021
- How Ming Street KTIL 240, 2021

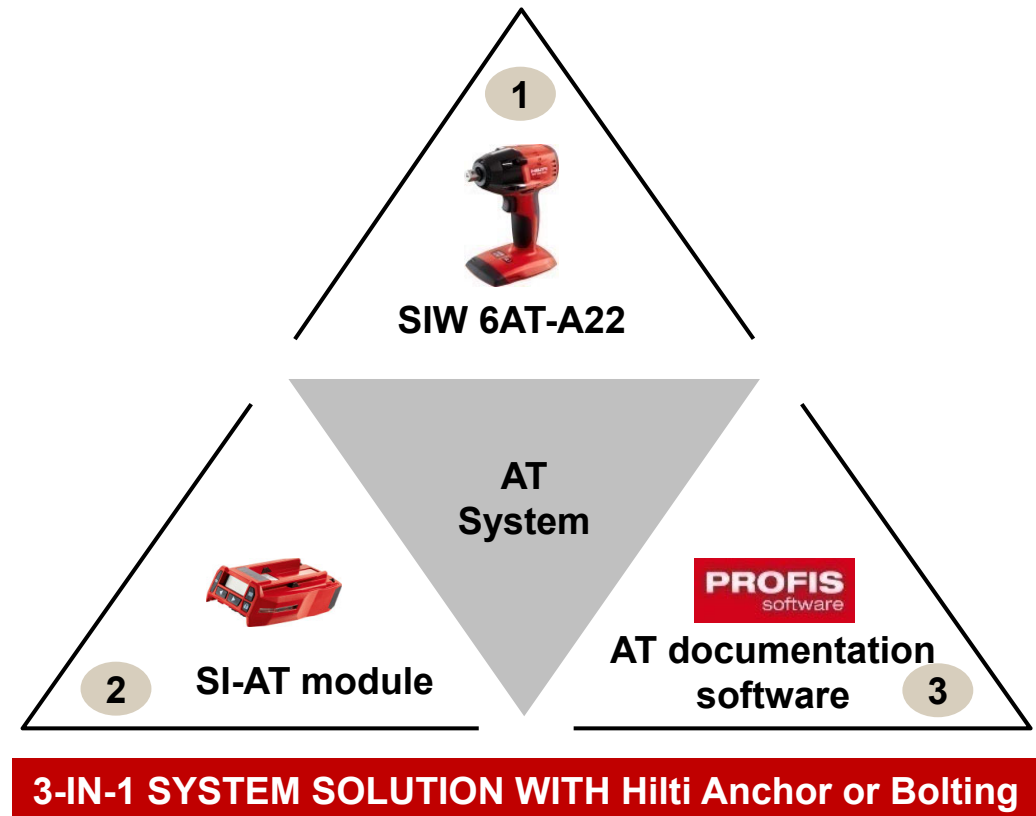
Rated voltage	21.6 V	
Weight in accordance with EPTA Procedure 01 including B228.0 battery	2.4 kg	
Rated speed under no load	Setting I	0 /min ... 1,000 /min
	Setting II	0 /min ... 1,500 /min
	Setting III	0 /min ... 2,700 /min
Impact speed	≤ 3,500 bpm	
Torque adjustment	Three settings (additional settings are possible when using the intelligent torque module SI-AT-22 and the torque display shows "AT")	
Large standard bolts	M8 to M16	
Large high-strength bolts	M6 to M12	
Chuck	1/2" square drive with ball-notch retention	
Storage temperature	-20 °C ... 70 °C	
Ambient temperature for operation	-17 °C ... 60 °C	

INNOVATIVE FEATURES

Core Technology:

- SIW 6AT-A22 cordless impact wrench: it is compatible with intelligent electronics, a more robust anvil and a sleeker front part which can reach into tighter spaces.
- SI-AT-A22 module which is a small, very light interface which slots in between the impact wrench and battery and crunches live data from the SIW 6AT-A22 to recognize when an anchor has been correctly installed.

First Launch Date: Jan
2018



AT SYSTEM ADOPTION EXAMPLE



Project for Illustration: How Ming Street KTIL 240, 2021

Work Process: Anchor Installation

Use/ Function in project: Baseplate Installation



AT SYSTEM BENEFIT -PRODUCTIVITY

	<p>AT SYSTEM</p> 	<p>Torque Wrench</p> 
<p>Productivity (Stud anchor)</p>	<p>ETA approval to install HILTI anchor– 3 seconds only</p>	<p>Need to fasten by impact wrench and finalize the torque with torque wrench – tiring and time consuming</p>
<p>Productivity (Bolting)</p>	<p>30 levels of torque adjustment for bolting application</p>	<p>Need to fasten by impact wrench and finalize the torque with torque wrench – tiring and time consuming</p>
<p>Traceability</p>	<p>Automatically installation record documentation, which can be retrieved from HILTI software for inspection and sharing purpose</p>	<p>Need to record on paper manually – inaccurate and time consuming</p>

AT SYSTEM BENEFITS – QUALITY

Improve quality by:

Quality Assurance

- Instant acoustic and visual feedback for correct installation
- Reliable and effortless installation in just 3 seconds

AT functionality

- New electronics enable the tool to be used with AT module. Easy access to AT relevant applications
- Built-in algorithm to ensure torque precision in each installation, workmanship error is minimized

More reliability

- Improved anvil robustness in order to reduce breakdowns and improve customer satisfaction

Improved accessibility

- Tinier front part of the tool makes SIW 6 more suitable in tight spots and reduces friction with base materials



BENEFITS –SAFETY

Improve Safety by:

Safety. Productivity. Approval.

- SAFESET is Hilti's proven methodology for consistently high-quality anchor installation at lightning speed
- The SIW 6AT-A22, along with the SI-AT-A22 module, fulfills all SAFESET criteria because they save time and reduce costs while also removing scope for installation error
- Generate installation report for easy inspection and recording
- Achieve ETA and ICC-ESR compliance for anchor installation into concrete

SAFESET