Cleco® Production Tools

Homologation

Document no: 004/2021

CellTek™

Cordless Assembly Tools

Type: **Cleco - CTBPW05Q**

Order no.: **CTBPW05Q**

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Cleco - CTBPW05Q

Pistol Tool

Order no.: CTBPW05Q

Machine type:	Cordless Assembly Tools
Torque range:	1.1 Nm to 4.9 Nm
Max speed:	3525 rpm
Certified serial nos.:	GC0059, GC0060, GC0061

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Cleco Production Tools

Homologation of nutrunners

Apex Tool Group

Cordless Assembly Tools

C_m / C_{mk} values achieved
According VDI/VDE 2647 February 2013

Accuracy class: 7 %

Tool model	Serial nos.	Test data	30 %		80 %		100 %	
			30° ±5°	360° ±15°	30° ±5°	360° ±15°	30° ±5°	360° ±15°
CTBPW05Q		Break time	5 s	10 s	10 s	30 s	10 s	45 s
		Test torque	**2.24 Nm**		**4.14 Nm**		**4.90 Nm**	
		Speed in 1st stage	1000 rpm	1000 rpm	1000 rpm	1000 rpm	1000 rpm	1000 rpm
		Speed in last stage	50 rpm	50 rpm	50 rpm	50 rpm	50 rpm	50 rpm
		Angle start torque	1.12 Nm		2.07 Nm		2.45 Nm	
	GC0059	C_m	4.29	4.52	4.76	7.93	4.64	7.56
		C_{mk}	4.10	4.07	4.40	7.30	4.47	6.82
	GC0060	C_m	3.74	5.51	5.40	8.51	4.35	7.62
		C_{mk}	3.65	4.70	5.21	7.95	4.01	7.28
	GC0061	C_m	3.61	3.83	4.29	5.86	3.35	6.46
		C_{mk}	3.57	3.31	3.74	5.53	3.26	5.73
Min. C_m/C_{mk}		C_m	3.61	3.83	4.29	5.86	3.35	6.46
		C_{mk}	3.57	3.31	3.74	5.53	3.26	5.73

	Target:	≥ 1.67	**Rating**
Capability index	**C_m**	**3.35**	**OK**
	C_{mk}	**3.26**	**OK**

Tolerances of rotational angle homologation
Measurements without angle correction

Tool model	Serial nos.	Test data	60 % of max. torque		80 % of max. torque	
			40°		**180°**	
CTBPW05Q		Break time	10 s		10 s	
		Angle start torque	0.98 Nm		0.98 Nm	
		Test torque	2.94 Nm		3.92 Nm	
		Speed in 1st stage	100 rpm		100 rpm	
		Speed in last stage	50 rpm		50 rpm	
	GC0059	Torque	±	2.59 %	±	1.22 %
		Angle	±	1.2°	±	1.9°
	GC0060	Torque	±	2.50 %	±	2.15 %
		Angle	±	1.1°	±	2.0°
	GC0061	Torque	±	1.96 %	±	2.21 %
		Angle	±	1.0°	±	2.4°

Torque	Target: ±	7 %	Target: ±	7 %
	Actual: ±	2.59 %	Actual: ±	2.21 %
Rating	**OK**		**OK**	

Angle	Target: ±	5°	Target: ±	10°
	Actual: ±	1.2°	Actual: ±	2.4°
Rating	**OK**		**OK**	

Apex Tool Group

Cordless Assembly Tools

Tolerances of rotational angle homologation

Measurements with angle correction

Tool model	Serial nos.	Test data	60 % of max. torque	80 % of max. torque
			40°	**180°**
CTBPW05Q		Break time	10 s	10 s
		Angle start torque	.98 Nm	.98 Nm
		Test torque	2.94 Nm	3.92 Nm
		Speed in 1st stage	100 rpm	100 rpm
		Speed in last stage	50 rpm	50 rpm
	GC0059	Torque	± 2.13 %	± 3.76 %
		Angle	± 3.0°	± 3.5°
	GC0060	Torque	± 2.92 %	± 2.68 %
		Angle	± 2.8°	± 3.2°
	GC0061	Torque	± 4.78 %	± 3.81 %
		Angle	± 3.4°	± 5.8°

Torque	Target: ± 7.00 %	Target: ± 7.00 %
	Actual: ± 4.78 %	Actual: ± 3.81 %
Rating	**OK**	**OK**

Angle	Target: ± 5°	Target: ± 10°
	Actual: ± 3.4°	Actual: ± 5.8°
Rating	**OK**	**OK**

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Test sheet no. 1a

General specifications

Manufacturer:	Apex Tool Group	**Assembly tool type:**	Cordless Assembly Tools
Tool model:	CTBPW05Q	**Serial numbers:**	GC0059, GC0060, GC0061
Torque range:	1.1 Nm to 4.9 Nm		

Rated capacity:		**2000 mAh**	**5000 mAh**
Battery voltage:		18 Volt	
Weight (without battery):		0.89 kg	
Weight (with battery):		1.32 kg	1.62 kg
Maximum speed at the first stage:		3525 rpm	
Maximum speed at the final stage:		3525 rpm	
Minimum speed at the final stage:		0 rpm	
Sound pressure level at maximum speed: (acc. to DIN EN 62841-1:2016-07, DIN EN 62841-2-2:2015-05)		66.3 dB(A)	
Number of duty cycles with a battery at 100% torque	Soft joint (L):	145 runs	220 runs
	Hard joint (H):	405 runs	785 runs
Temperature of electrical tools: (After 100 measurements with soft jont at 80% torque)		start	end
	at the output drive:	-	-
	on the electric motor:	22 °C	43 °C
	on the handle:	22 °C	31 °C
Output type:		Quick change	
Output drive size:		1/4 "	

Test sheet no. 1b

Specifications of controller

Manufacturer:	Apex Tool Group	**Serial number:**	MPRO-A84968
Controller type:	MPRO400GCD-P	**Software version:**	S168813-1.12.0.61436-Test Mar 3 2021

Fastening Strategy:	Current shut-off:	Yes
	Torque control:	Yes
	Torque control, angle monitoring:	Yes
	Angle control, torque monitoring:	Yes
	Yield point control:	Yes
	Pre-load control:	No
Options:	Prevailing torque:	Yes
	Angle correction:	Yes
	Pulsing:	No
	Tighten - loosen - tighten:	Yes
	Tapping screw monitoring:	Yes
	Left-hand rundown:	Yes
	Other procedures:	Yes, see documentation
Angle of rotation resolution:		1 degree
Torque accuracy:		1 %
Programming:	Keyboard:	Yes
	External PC:	Yes
	Text display:	Yes
	Display:	Yes
	LCD display:	No
Printer interface:		Yes
Additional inputs and outputs:		2 Serial 8 Digital in, 8 Digital out 2 Fieldbus modules 3 USB
Isolation transformer:		No, galvanic isolated power supply
Network:		Yes

POWER TOOLS SALES & SERVICE CENTERS

Please note that all locations may not service all products.
Contact the nearest Cleco® Sales & Service Center for the appropriate facility to handle your service requirements.

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