

Cleco[®]
Production Tools

Homologation

Document no: 002/2021

CellTek[™]

Cordless Assembly Tools

Type: **Cleco - CTBAW273**

Order no.: **CTBAW273**



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Cleco - CTBAW273

Right Angle Tool

Order no.: CTBAW273



Machine type:	CellTek Tool
Torque range:	6,8 Nm to 27 Nm
Max speed:	560 rpm
Certified serial nos.:	GB0211, GB0201, GB0209

Contents:	Overview C_m/C_{mk} values General specifications tool and controller Power Tools Sales & Service Centers Machine capability study and graphs Measurement capability test
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C_m / C_{mk} values achieved

Accuracy class: 7 %

CellTek Tool

According VDI/DE 2647 February 2013

Tool	Serial nos.	Test data	30 %		80 %		100 %	
			30° ±5°	360° ±15°	30° ±5°	360° ±15°	30° ±5°	360° ±15°
Cleco-CTBAW273		Break time	5 s	11 s	5 s	30 s	7 s	45 s
		Test torque	12,86 Nm		22,96 Nm		27,00 Nm	
		Speed in 1st stage	560 rpm	560 rpm	560 rpm	560 rpm	560 rpm	560 rpm
		Speed in last stage	50 rpm	50 rpm	50 rpm	50 rpm	50 rpm	50 rpm
		Angle start torque	6,43 Nm		11,48 Nm		13,50 Nm	
	GB0211	C _m	5,23	4,19	5,57	5,00	4,90	5,32
		C _{mk}	5,19	3,48	5,14	3,50	4,49	3,52
	GB0201	C _m	4,98	5,55	5,59	5,35	5,36	5,51
		C _{mk}	4,94	4,45	5,22	3,55	4,81	3,89
	GB0209	C _m	4,99	5,44	6,34	4,92	5,52	5,08
C _{mk}		4,97	4,51	5,95	3,69	4,99	3,61	
Min. C _m /C _{mk}		C _m	4,98	4,19	5,57	4,92	4,90	5,08
		C _{mk}	4,94	3,48	5,14	3,50	4,49	3,52

	Target:	≥ 1.67	Rating
Capability index	C_m	4,19	OK
	C_{mk}	3,48	OK

Tolerances of rotational angle homologation
Measurements with angle correction

Tool	Serial nos.	Test data	60 % of max. torque		80 % of max. torque	
			40°		180°	
Cleco-CTBAW273		Break time	5 s		5 s	
		Angle start torque	5,40 Nm		5,40 Nm	
		Test torque	16,20 Nm		21,60 Nm	
		Speed in 1st stage	300 rpm		300 rpm	
		Speed in last stage	50 rpm		50 rpm	
	GB0211	Torque	±	2,11 %	±	2,88 %
		Angle	±	1,3°	±	2,0°
	GB0201	Torque	±	2,00 %	±	2,64 %
		Angle	±	1,7°	±	2,3°
	GB0209	Torque	±	4,25 %	±	5,82 %
Angle		±	1,4°	±	1,7°	
Torque		Target: ±	7 %	Target: ±	7 %	
		Actual: ±	4,25 %	Actual: ±	5,82 %	
Rating		OK		OK		
Angle		Target: ±	5°	Target: ±	10°	
		Actual: ±	1,7°	Actual: ±	2,3°	
Rating		OK		OK		

Apex Tool Group

Tolerances of rotational angle homologation

CellTek Tool

Measurements without angle correction

Tool	Serial nos.	Test data	60 % of max. torque	80 % of max. torque	
			40°	180°	
Cleco-CTBAW273		Break time	5 s	5 s	
		Angle start torque	5,40 Nm	5,40 Nm	
		Test torque	16,20 Nm	21,60 Nm	
		Speed in 1st stage	300 rpm	300 rpm	
		Speed in last stage	50 rpm	50 rpm	
	GB0211	Torque	± 1,83 %	± 2,55 %	
		Angle	± 1,2°	± 2,4°	
	GB0201	Torque	± 1,54 %	± 2,21 %	
		Angle	± 1,1°	± 2,7°	
	GB0209	Torque	± 3,60 %	± 5,33 %	
		Angle	± 0,9°	± 1,8°	
			Torque	Target: ± 7,00 %	Target: ± 7,00 %
				Actual: ± 3,60 %	Actual: ± 5,33 %
			Rating	OK	OK
		Angle	Target: ± 5°	Target: ± 10°	
			Actual: ± 1,2°	Actual: ± 2,7°	
		Rating	OK	OK	

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Annex 1
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Test sheet no. 1a

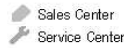
General specifications

Manufacturer: Apex Tool Group **Assembly tool type:** Electric tool (EC type)
Tool model: Cleco-CTBAW273 **Serial numbers:** GB0211, GB0201, GB0209
Torque range: 6,8 Nm to 27 Nm

		2000 mAh	5000 mAh
Rated capacity:			
Battery voltage:		18 Volt	
Weight (without battery):		1,45 kg	
Weight (with battery):		1,88 kg	2,18 kg
Maximum speed at the first stage:		560 rpm	
Maximum speed at the final stage:		560 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)		63,0 dB(A)	
Number of duty cycles with a battery at 100% torque	Soft joint (L):	100 runs	300 runs
	Hard joint (H):	345 runs	940 runs
Temperature of electrical tools: (After 100 measurements with soft joint at 80% torque)		start	end
	at the output drive:	21 °C	34 °C
	on the electric motor:	21 °C	42 °C
	on the handle:	21 °C	38 °C
Output type:		Square drive	
Output drive size:		3/8 "	

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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