



Component Certificate

No.: FGH-K-2026-010

Duly signed copy No. 1

Manufacturer	Beckhoff Automation GmbH & Co. KG, Hülshorstweg 20, 33415 Verl, Germany	
Type	Power Plant Controller (PPC)	TwinCAT Power Control
Ratings	Functionality: Control unit: Controller core: Software version: Measurement terminal For further ratings and technical data see page 3	Active and reactive power control CX8200, CX8290, CX9240, CX5330, CX5340, CX5620, CX5630, CX2033, CX2043 TwinCAT Power Plant Control 0.1.5 EL3453 (EL3453-0100) EL3783 (EL3783-0100)
Specification	WOS 2025 - Wymogi ogólnego stosowania wynikające z Rozporządzenia Komisji (UE) 2016/631 z dnia 14 kwietnia 2016 r. ustanawiającego kodeks sieci dotyczący wymogów w zakresie przyłączenia jednostek wytwórczych do sieci (NC RfG) dated of May 2025 NC RfG - Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators	
Certification scheme	FGH Specification Z 416, Rev. 14	
Applicable guidelines	WIPWC 1.3 - Warunki i procedury wykorzystania certyfikatów w procesie przyłączenia modułów wytwarzania energii do sieci elektroenergetycznych, version 1.3 FGW-TR3, Rev. 26	
Applicable for PGM type(s)	PPM of significance level C and D	

The control characteristics of the above-specified power plant controller, with the technical data provided on page 3, comply with the specifications given above with regard to the following requirements:

- Limited active power-frequency control mode (LFSM-O and LFSM-U)

The manufacturer has provided evidence of the certification of its quality management system according to ISO 9001:2015 (see section D.2). This certificate consists of 13 pages (cover sheet and sections A to F) and the annexes A to D. It is valid until 4th October 2031.

Aachen, 5th October 2026



Dipl.-Ing. Parsa Tavassoli,
Director of FGH Certification Body

This certificate may not be reproduced in parts



Section A of the Certificate
General Layout Diagram of the PPC TwinCAT Power Control

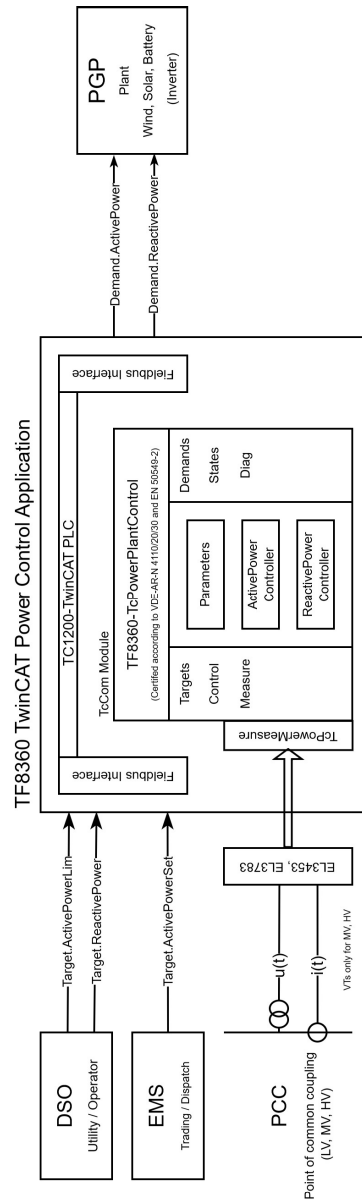


Figure A.1: General layout of the PPC TwinCAT Power Control

DSO: Distribution System Operator

EMS: Energy Management System

PGP: Power Generating Plant

(Source: Manufacturer's Declaration Manual TF8360 [MD1])

Section B of the Certificate
Technical Data of the PPC TwinCAT Power Control

Characteristics	Value / description	Unit
Control unit (Embedded-PC)		
Manufacturer	Beckhoff Automation GmbH & Co. KG	
Type	I: CX8200 II: CX8290 III: CX9240 IV: CX5330 V: CX5340 VI: CX5620 VII: CX5630 VIII: CX2033 IX: CX2043	
Processor	I: Arm®Cortex®-A53 CPU, 2 cores, 1,2 GHz, 1 GB RAM II: Arm®Cortex®-A53 CPU, 2 cores, 1,2 GHz, 1 GB RAM III: Arm®Cortex®-A53 CPU, 4 cores, 1,2 GHz, 2 GB RAM IV: Intel Atom®x6214RE CPU, 2 cores, 1,4 GHz, 4 GB RAM V: Intel Atom®x6425RE CPU, 4 cores, 1,9 GHz, 8 GB RAM VI: AMD Ryzen™ R1102G CPU, 2 cores, 1.2 GHz, 4 GB RAM VII: AMD Ryzen™ R1505G CPU, 2 cores, 2.0 GHz, 8 GB RAM VIII: AMD Ryzen™ V1202B CPU, 2 cores, 2.3 GHz, 8 GB RAM IX: AMD Ryzen™ V1807B CPU, 4 cores, 3.35 GHz, 8 GB RAM	
Interfaces	various depending on the control unit (see section A-1.2.3.1 and annex B-4)	
Communication protocols	see section A-1.2.3.1, Table A-1.2	
Measuring device (grid analyser)		
Manufacturer	Beckhoff Automation GmbH & Co. KG	
Type (by default)	EL3453 (EL3453-0100) EL3783 (EL3783-0100) see section A-1.2.3.3	
Software module (controller core)	TwinCAT Power Plant Control	
Manufacturer	Beckhoff Automation GmbH & Co. KG	
Software version	0.1.5	
Supply voltage	24 (-15%/+20%)	V (DC)
Uninterruptible power supply - UPS	project-specific	

Table B.1: Technical data of the PPC TwinCAT Power Control
(Source: Manufacturer's Declaration Manual TF8360 [MD1])

The technical description of the power plant controller TwinCAT Power Control in the Manufacturer's Declaration Manual TF8360 [MD1] dated of 18th September 2026 by the manufacturer Beckhoff Automation GmbH & Co. KG forms the basis for this certificate.