PORCELAIN PIN TYPE INSULATORS — WITH MATCHING SPINDLES

C-130 Wet-Process Porcelain · 55 Series (LV/MV) & 56 Series (HV) · 1 kV – 33 kV · Six International Standard Systems

PRODUCT OVERVIEW

Vuulcan porcelain pin type insulators are wet-process, kiln-fired C-130 high-alumina porcelain for overhead distribution and sub-transmission lines from 1 kV to 33 kV. The 55 series (ANSI C29.5) covers low and medium voltage; the 56 series (ANSI C29.6) covers high voltage up to 33 kV. Every insulator ships with a dimensionally matched hot-dip galvanized forged steel spindle — M-type (top thread) or T-type (through bolt) — eliminating the need for separate sourcing. Six international standard systems are available from our Zibo heritage production base.

KEY FEATURES

- ✓ C-130 high-alumina porcelain — zero puncture risk
- ✓ ANSI C29.5 (55 series) · ANSI C29.6 (56 series)
- ✓ IEC · AS 2947.2 · DIN · SA standard systems available
- ✓ Pin + spindle bundle — dimensionally guaranteed fit
- ✓ M-type (top thread) & T-type (through bolt) spindles
- ✓ Hot-dip galvanized steel spindles ≥ 86 µm per ISO 1461
- ✓ DNV ISO 9001 · CRCC · KEMA type tested

ANSI C29.5 — LOW & MEDIUM VOLTAGE PIN (55 SERIES)

CLASS	D (MM)	H (MM)	CREEPAGE (MM)	CANTILEVER (KN)	DRY F/O (KV)	WET F/O (KV)	IMPULSE+ (KV)
55-1	83	83	102	13	35	20	50
55-2	95	83	127	11	50	25	75
55-3	121	95	178	11	65	35	100
55-4	140	111	229	13	70	40	110
55-5	178	124	305	13	85	45	140

ANSI C29.5 · Rated system voltage 1 kV – 15 kV · Matched spindles C100M / C105T series

ANSI C29.6 — HIGH VOLTAGE PIN (56 SERIES)

CLASS	D (MM)	H (MM)	CREEPAGE (MM)	CANTILEVER (KN)	DRY F/O (KV)	WET F/O (KV)	IMPULSE+ (KV)
56-1	191	146	330	11	95	60	150
56-2	229	165	432	13.2	110	70	175
56-3	267	191	533	13.2	125	80	200
56-4	305	241	685	13.2	140	95	225
56-5	343	318	864	13.2	175	125	270

ANSI C29.6 · Rated system voltage 15 kV – 33 kV · Wet F/O ≥ 2× max phase-to-ground voltage recommended for pollution zones

MATERIAL SPECIFICATION

COMPONENT	MATERIAL	SPECIFICATION
Body	C-130 Porcelain	Wet-process, kiln-fired 1280 °C. Brown glaze. Zero porosity. 100% visual & dimensional inspection.
Spindle	Forged Steel, HDG	ASTM A576 / equivalent. Hot-dip galvanized ≥ 86 µm per ISO 1461. M-type & T-type available.
Cement	Portland Cement	High-strength alumina bonding compound. Controlled assembly torque. Weather-resistant seal.

MATCHING SPINDLES — ANSI STANDARD (HDG FORGED STEEL)

MODEL	TYPE	H (MM)	D (MM)	MECH. LOAD (KN)	WT. (KG)	FOR ANSI CLASS
C110M	M-Type (Top Thread)	330	76	11	1.90	56-1
C111M	M-Type (Top Thread)	356	76	9	2.20	56-2
C112M	M-Type (Top Thread)	407	89	10	2.50	56-3
C113M	M-Type (Top Thread)	432	89	9	3.25	56-4
C115T	T-Type (Through Bolt)	198	76	11	1.54	56-1
C116T	T-Type (Through Bolt)	223	76	9	1.87	56-2
C117T	T-Type (Through Bolt)	274	89	10	2.17	56-3
C118T	T-Type (Through Bolt)	299	89	9	2.70	56-4

Spindle auto-matched to ANSI class at quotation · BS and AS standard spindle dimensions available · All spindles hot-dip galvanized forged steel

M-TYPE — TOP THREAD (C110M–C114M)

Crossarm-top mounting with nut. Standard for most distribution configurations. Available in ANSI, BS, and AS head dimensions.

T-TYPE — THROUGH BOLT (C115T–C120T)

Through-bolt crossarm mounting. Preferred where vibration resistance is critical or for steel crossarm applications.

IEC / AS / DIN / SA — REPRESENTATIVE MODELS

STANDARD	MODEL	D (MM)	H (MM)	CREEPAGE (MM)	CANTILEVER	WET F/O (KV)	DRY F/O (KV)
IEC	P-22-Y	230	165	432	11 kN	70	125
IEC	P-33-Y	279	244	630	13.8 kN	90	170
AS 2947.2	ALP/22/450	160	200	450	11 kN	50	—
AS 2947.2	ALP/33/710	220	265	710	11 kN	90	—
DIN	D10K47	—	—	—	—	65	90
SA	CN46	160	160	320	1800 daN	65	85

IEC range includes common glaze and semiconductor glaze variants · AS models feature AS Fig.10 head dimensions · DIN and SA models available on request with full engineering data

Multi-Standard Supply: ANSI, IEC, AS, DIN, and SA pin insulators manufactured from our single Zibo heritage production base — **one supply source, six standard systems**, eliminating multiple supplier qualifications for international EPC projects.

ROUTINE TESTS — PER PRODUCTION BATCH

1	Visual & dimensional inspection (100%)	C29.5/6 §5	**2**	Dry power frequency withstand (1 min)	ANSI C29.1 §4
3	Wet flashover voltage test	ANSI C29.1 §5	**4**	Cantilever load test at rated load (1 min)	C29.5/6 §7
5	Galvanizing thickness ≥ 86 µm (mag. gauge)	ISO 1461	**6**	Thermal shock test (type test on request)	ANSI C29.1 §4

APPLICABLE STANDARDS & CERTIFICATIONS

LV/MV DESIGN
ANSI C29.5 (55 Series)

HV DESIGN
ANSI C29.6 (56 Series)

QUALITY SYSTEM
DNV ISO 9001:2015

INTERNATIONAL
IEC · AS 2947.2 · DIN · SA

TEST METHODS
ANSI C29.1

GALVANIZING
ISO 1461 ≥ 86 µm

ANSI C29.5 | ANSI C29.6 | IEC | AS 2947.2 | DIN | DNV ISO 9001 | CRCC | KEMA

ORDERING INFORMATION

Pin only: `VPT – 56-2 – STD` Bundle: `VPT – 56-2 – C111M – BUNDLE` IEC: `VPT – P-33-Y – IEC`

VPT = Vuulcan Pin Type · **55-X / 56-X** = ANSI class · **C1XXM** = M-type spindle model · **C1XXT** = T-type spindle model · **BUNDLE** = Pin + spindle matched set · **IEC / AS / DIN / SA** = Alternative standard

Custom voltage classes, creepage levels, and spindle configurations available. Type-test reports per ANSI C29.5 / C29.6 for standard configurations. Third-party inspection (SGS, BV, Intertek) welcome at any production stage. Contact: **inquiry@vuulcaninsulators.com** · vuulcaninsulators.com