

KLEEV®

ENCLOSURE

Ex eb / Ex ia



KLEEV MIDDLE EAST FZE

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Kleev Middle East FZE Ex-Enclosures offer a diverse solution whether you want empty enclosures, terminal boxes, or control panels.

The KPE junction box series is constructed from stainless steel sheets or mild steel sheets, providing durability and reliable performance in aggressive environments. Engineered with high-quality materials and advanced manufacturing technologies, these enclosures are built to withstand challenging external conditions such as water, dust, corrosion, and extreme temperature variations. This ensures long-lasting and dependable service life.

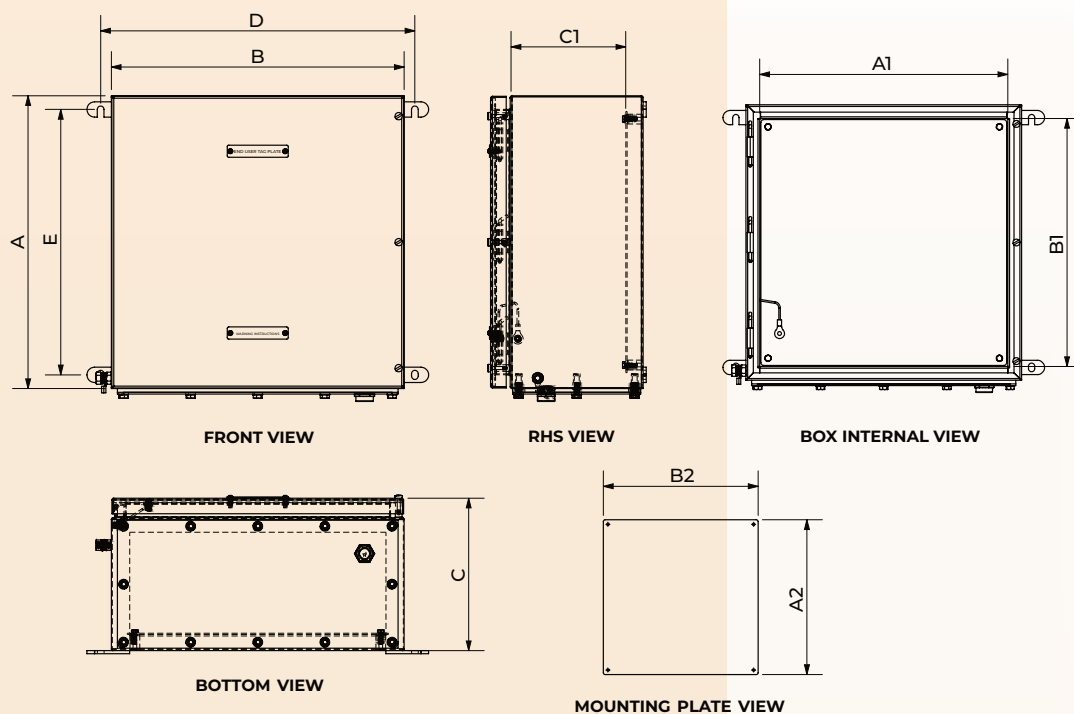


FEATURES

- 17 Standard size and custom size on request
- Mounting plate or mounting rail option available
- All side removable gland plate option available
- Door stopper, Drawing pocket, Pad eye, Sunshade option available
- IP 66 protection as per IEC 60529
- -35°C to +160°C operating temp.
- IECEx, ATEX & ECAS Certification

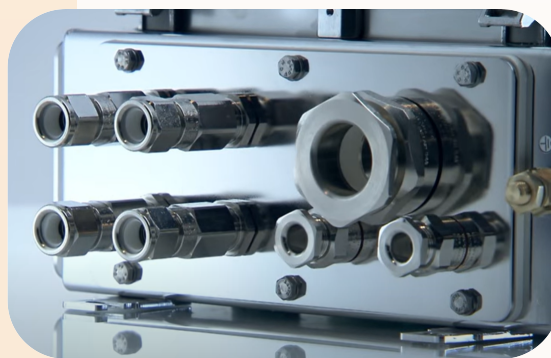
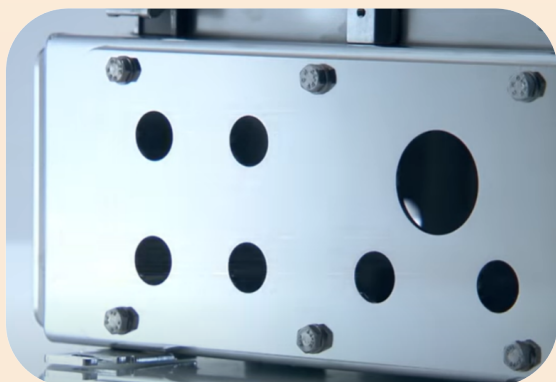


ENCLOSURE DIMENSIONS



Sr. No.	Type	External dimensions [mm]			Internal dimensions [mm]			Mounting C/C		Mounting Plate		Standard Thickness
		A	B	C	A1	B1	C1	D	E	A2	B2	
1	KPEXYYY200150150	200	150	150	152	102	91	185	155	148	98	1.5
2	KPEXYYY260260150	260	260	150	212	212	91	295	215	208	208	1.5
3	KPEXYYY260260200	260	260	200	212	212	141	295	215	208	208	1.5
4	KPEXYYY300200150	300	200	150	252	152	91	235	255	248	148	1.5
5	KPEXYYY300200200	300	200	200	252	152	141	235	255	248	148	1.5
6	KPEXYYY380380150	380	380	150	332	332	91	415	335	328	328	1.5
7	KPEXYYY380380200	380	380	200	332	332	141	415	335	328	328	1.5
8	KPEXYYY400500150	400	500	150	352	452	91	535	355	348	448	1.5
9	KPEXYYY400500200	400	500	200	352	452	141	535	355	348	448	1.5
10	KPEXYYY500600200	500	600	200	452	552	141	635	455	448	548	1.5
11	KPEXYYY600450200	600	450	200	552	402	141	485	555	548	398	1.5
12	KPEXYYY760500200	760	500	200	712	452	141	535	715	708	448	1.5
13	KPEXYYY900600300	900	600	300	850	550	241	635	855	848	548	2
14	KPEXYYY1000500300	1000	500	300	950	450	241	535	955	948	448	2
15	KPEXYYY1500800500	1500	800	500	1450	750	441	835	1455	1448	748	2
16	KPEXYYY2000800800	2000	800	800	1950	750	741	-	-	1900	700	2
17	KPEXYYY200012001000	2000	1200	1000	1950	1150	941	-	-	1900	1100	2

- * The enclosures can be made in custom sizes, as long as no dimension is larger than the largest standard size or smaller than the smallest standard size.



ENCLOSURE CABLE ENTRIES

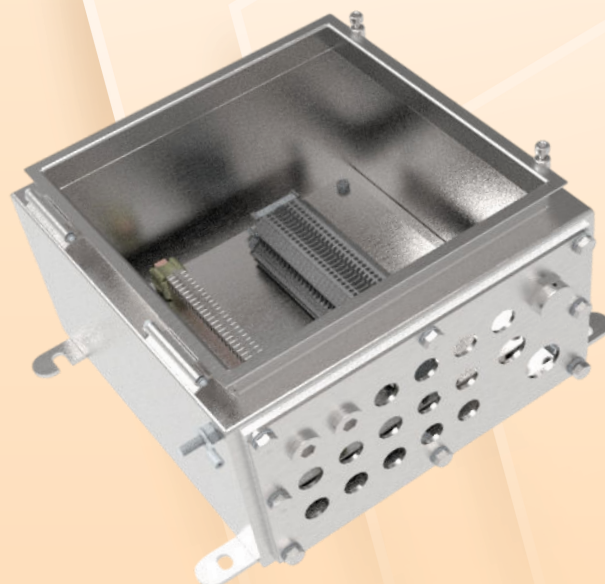
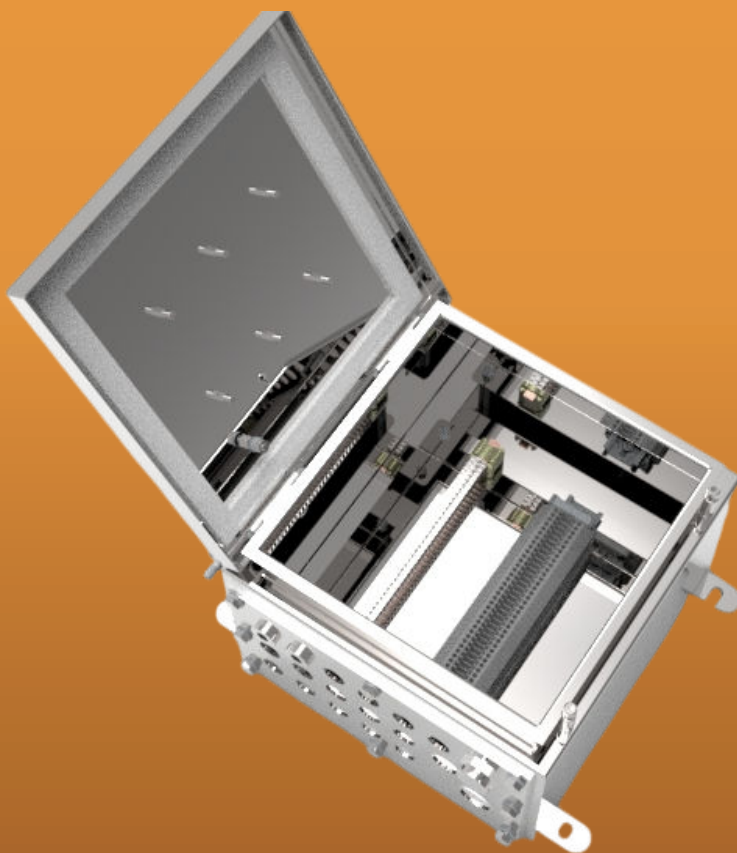
Cable Entry Top / Bottom Gland Plate											
Sr. No.	Type	M16	M20	M25	M32	M40	M50	M63	M75	M90	M100
1	KPEXYYY200150150	5	2	2	1	-	-	-	-	-	-
2	KPEXYYY260260150	12	10	5	4	3	-	-	-	-	-
3	KPEXYYY260260200	18	15	12	8	5	3	-	-	-	-
4	KPEXYYY300200150	8	4	3	2	2	-	-	-	-	-
5	KPEXYYY300200200	12	12	8	5	3	2	1	1	-	-
6	KPEXYYY380380150	20	18	9	6	5	4	-	-	-	-
7	KPEXYYY380380200	30	27	21	12	9	5	3	3	-	-
8	KPEXYYY400500150	28	26	10	9	7	6	-	-	-	-
9	KPEXYYY400500200	54	39	30	18	14	8	5	4	-	-
10	KPEXYYY500600200	68	48	38	22	17	10	6	5	-	-
11	KPEXYYY600450200	46	33	27	16	6	5	4	3	-	-
12	KPEXYYY760500200	42	39	20	18	7	6	5	4	-	-
13	KPEXYYY900600300	124	95	64	43	26	22	11	9	4	3
14	KPEXYYY1000500300	96	76	48	34	19	16	10	8	3	2
15	KPEXYYY1500800500	310	262	178	118	82	58	30	40	14	7
16	KPEXYYY2000800800	550	460	304	223	142	98	62	68	24	19
17	KPEXYYY200012001000	550	460	304	223	142	98	62	68	24	19

Cable Entry Side Gland Plate											
Sr. No.	Type	M16	M20	M25	M32	M40	M50	M63	M75	M90	M100
1	KPEXYYY200150150	6	3	2	2	-	-	-	-	-	-
2	KPEXYYY260260150	10	8	4	3	2	-	-	-	-	-
3	KPEXYYY260260200	15	12	9	6	3	2	-	-	-	-
4	KPEXYYY300200150	12	10	5	4	3	-	-	-	-	-
5	KPEXYYY300200200	18	15	12	8	5	3	2	1	-	-
6	KPEXYYY380380150	18	16	8	5	4	4	-	-	-	-
7	KPEXYYY380380200	27	24	18	11	8	5	3	2	-	-
8	KPEXYYY400500150	18	16	9	6	5	4	-	-	-	-
9	KPEXYYY400500200	36	24	20	12	9	5	3	2	-	-
10	KPEXYYY500600200	50	36	27	16	12	7	4	3	-	-
11	KPEXYYY600450200	60	45	35	20	8	7	5	4	-	-
12	KPEXYYY760500200	63	57	32	26	11	9	7	6	-	-
13	KPEXYYY900600300	180	142	93	62	37	31	16	12	5	4
14	KPEXYYY1000500300	201	160	108	74	43	37	18	14	6	5
15	KPEXYYY1500800500	596	502	338	230	166	118	62	50	28	16
16	KPEXYYY2000800800	1447	1195	797	598	382	268	174	124	68	46
17	KPEXYYY200012001000	1447	1195	797	598	382	268	174	124	68	46

CERTIFICATION DATA FOR EMPTY ENCLOSURES

Certification data for empty enclosures

Classification	Group II Category 2GD
Installation	zone 1 - zone 2 (Gas) zone 21 - zone 22 (Dust)
Marking	CE 0598  II 2GD Ex eb IIC Gb - Ex tb IIIC Db IP66
Certification	ATEX ICQC 23 ATEX 0496 U
	IEC Ex IECEx KLCS 23.0020U
	ECAS AVAILABLE
Standards	EN IEC 60079-0: 2018+AC2020-02, EN IEC 60079-7: 2015+A1:2018, EN IEC 60079-31: 2014, IEC 60079-0: 2017, IEC 60079-7: 2015, IEC 60079-31: 2013
Degree of protection	IP66 as per IEC 60529



CERTIFICATION DATA FOR ENCLOSURES WITH TERMINALS

Certification data for enclosures with terminals

Classification	Group II Category 2GD
Installation	zone 1 - zone 2 (Gas) zone 21 - zone 22 (Dust)
Marking	CE 0598  II 2GD Ex eb IIC T6...T3 Gb - Ex tb IIIC T85°C/T200°C Db IP66 CE 0598  II 2GD Ex eb ia IIC T6... T3 Ga - Ex tb IIIC T85°C/T200°C Db IP66 CE 0598  II 2GD Ex eb ia IIC T6...T3 Gb - Ex tb IIIC T85°C/T200°C Db IP66 CE 0598  II 2GD Ex ec IIC T6... T3 Gc - Ex tb IIIC T85°C/T200°C Db IP66 CE 0598  II 2GD Ex ec ia IIC T6...T3 Gc - Ex tb IIIC T85°C/T200°C Db IP66
Certification	ATEX ICQC 23 ATEX 0497 X IEC Ex IECEx KLCS 23.0021X ECAS AVAILABLE
Standards	EN IEC60079-0: 2018, EN 60079-7: 2015+A1:2018, EN 60079-11: 2012, EN 60079-31: 2014, IEC 60079-0: 2017, IEC 60079-7: 2015, IEC 60079-11: 2011, IEC 60079-31: 2013
Ambient Temperature	See "ambient temperature range" table
Degree of protection	IP66 as per IEC 60529

AMBIENT TEMP. RANGE

Sr. No.	Ambient Temperature	Temperature Class	Cable & Cable Gland Temperature
1	-35°C +60°C	T6	T80°C
2	-35°C +70°C	T5	T90°C
3	-35°C +90°C	T4	T110°C
4	-35°C +40°C	T6	T80°C
5	-35°C +50°C	T5	T80°C
6	-35°C +70°C	T4	T110°C
7	-35°C +45°C	T4	T100°C
8	-35°C +50°C	T3	T110°C

CERTIFICATION DATA FOR LOCAL CONTROL PANEL

Certification data for Local Control Panel

Classification	Group II Category 2GD
Installation	zone 1 - zone 2 (Gas) zone 21 - zone 22 (Dust)
Marking	See "Ex marking" table
Certification	ATEX ICQC 23 ATEX 0498 X IEC IECEx KLCS 23.0023X
Standards	EN IEC60079-0: 2018, EN 60079-7: 2015+A1:2018, EN 60079-11: 2012, EN 60079-31: 2014, IEC 60079-0: 2017, IEC 60079-7: 2015, IEC 60079-11: 2011, IEC 60079-31: 2013
Ambient Temperature	See "ambient temperature range" table
Degree of protection	IP54 as per IEC 60529 for Ex e and IP66 as per IEC 60529 for Ex t

Ex MARKING

Ex marking as per component group	
Without I.S. terminals	With I.S. terminals
Ex eb IIC T* Gb (-35 °C ≤ Ta ≤ +** °C)	Ex eb ia IIC T* Gb (-35 °C ≤ Ta ≤ +** °C)
Ex db eb IIC T* Gb (-35 °C ≤ Ta ≤ +** °C)	Ex db eb ia IIC T* Gb (-35 °C ≤ Ta ≤ +** °C)
Ex eb mb IIC T* Gb (-35 °C ≤ Ta ≤ +** °C)	Ex eb ia mb IIC T* Gb (-35 °C ≤ Ta ≤ +** °C)
Ex db eb mb IIC T* Gb (-35 °C ≤ Ta ≤ +** °C)	Ex db eb ia mb IIC T* Gb (-35 °C ≤ Ta ≤ +** °C)
Ex ec IIC T* Gc (-35 °C ≤ Ta ≤ +** °C)	Ex ec ia IIC T* Gc (-35 °C ≤ Ta ≤ +** °C)
Ex db ec IIC T* Gc (-35 °C ≤ Ta ≤ +** °C)	Ex db ec ia IIC T* Gc (-35 °C ≤ Ta ≤ +** °C)
Ex ec mb IIC T* Gc (-35 °C ≤ Ta ≤ +** °C)	Ex ec ia mb IIC T* Gc (-35 °C ≤ Ta ≤ +** °C)
Ex db ec mb IIC T* Gc (-35 °C ≤ Ta ≤ +** °C)	Ex db ec ia mb IIC T* Gc (-35 °C ≤ Ta ≤ +** °C)

AMBIENT TEMP. RANGE

Sr. No.	Ambient Temperature	Temperature Class	Cable & Cable Gland Temperature
1	-35°C +40°C	T6	T80°C
2	-35°C +50°C	T5	T80°C
3	-35°C +70°C	T4	T80°C
4	-35°C +45°C	T4	T80°C
5	-35°C +50°C	T3	T80°C

TECHNICAL DETAILS

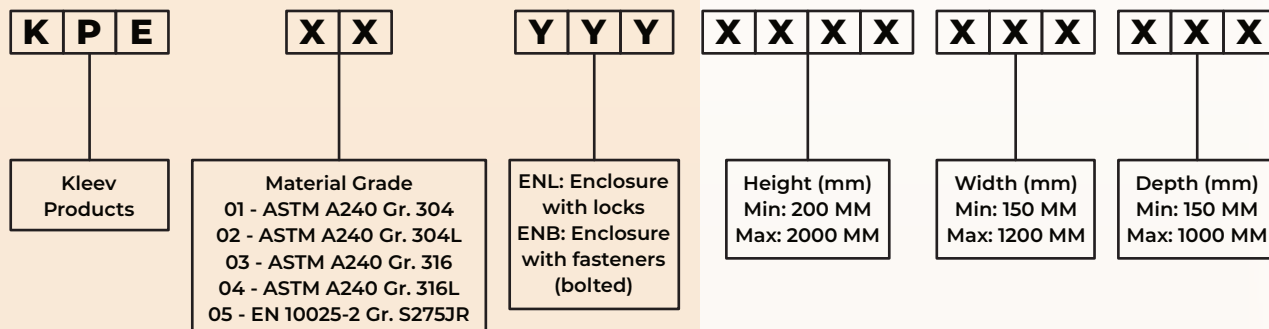
Technical Specification

Material	Standard - Stainless Steel 316L Optional - Mild Steel / Carbon Steel / Galvanized Steel
Material Grade	01 = ASTM A240 Gr. 304 02 = ASTM A240 Gr. 304L 03 = ASTM A240 Gr. 316 04 = ASTM A240 Gr. 316L (Standard) 05 = EN 10025-2 Gr. S275JR 06 = EN 10025-2 Gr. S235JR 07 = IS 513 CR-2 08 = ASTM A653 CS-A
Enclosure Body/Door thickness	Standard - 1.5 mm Optional - 1.2 to 4 mm
Mounting Plate thickness	Standard - 2 mm Optional - as per required thickness / mounting rails
Removable Gland Plate thickness	Standard - 3 mm Optional - 1.5 mm min and max as per requirement
Degree of protection	IP66 as per IEC 60529
Gasket material	Silicon
Gland plate side	Standard - Bottom side Optional - Without or all side (Left/Right/Top/Bottom)
Surface finish	Standard - External brush finish & Internal 2b finish Optional - Painted / Powder coated
Door fixing	Standard - Captive screw with concealed hinges Optional - Cam lock / 3 Point lock / Pad lock / Latch lock
Earthing stud	Standard - M10 External Earth Stud welded on Body & M6 Internal Earth stud welded on door and internal body with earth cable Optional - M6 to M20 can be provided as per requirement
Area classification	zone 1 - zone 2 (Gas) zone 21 - zone 22 (Dust)
Ambient temperature	refer table on page 5 & 6
Cable entry	refer table on page 3
Document pocket	Optional as per enclosure sizes welded/bolted
Door stopper	Optional - upto 120° Degree (Door opening upto 180° Degree feasible on request)
Eye bolt / Padeye	Optional - As per client requirement
Sunshade	Optional - As per client requirement
Name plate, tag plate and warning plate	Standard - SS 316 Bolted on door Optional material - Traffolyte/SS 304/SS 304L/SS 316/Any can be mounted on welded bracket if direct mounted on door not permissible
Terminal block	Standard - Weidmuller Optional - Phoenix or as per IECEx Certification
Earth bar	As per client requirement and as per certification
Control and signalling components	As per IECEx certification
Breather/Drain Plug	Standard - M20 Brass Nickel Plate Exe Protection Optional - M20 or M25 - SS304 / SS316 / SS316L / BRASS / BRASS Ni PLATED / POLYAMIDE - Exd/Exe Protection
Stopper Plug	Optional - SS304 / SS316 / SS316L / BRASS / BRASS Ni PLATED / POLYAMIDE Exd/Exe Protection - Size as per client requirement
Cable Gland	Optional - SS304 / SS316 / SS316L / BRASS / BRASS Ni PLATED / POLYAMIDE Exd/Exe Protection - Size as per client requirement (Adaptor optional)

SELECTION OF TYPE / MODEL NO.

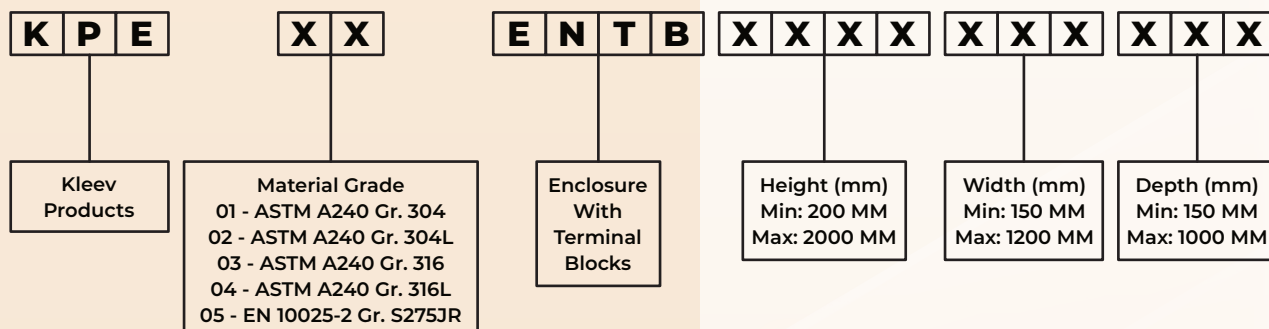
Type of Enclosure / Junction Box

Ex-Enclosure Empty



Type of Enclosure / Junction Box

Ex-Enclosure with Terminal Block



Type of Enclosure / Junction Box

Ex-Local Control Panel (LCP)

