

LPDM Series
LPDH Series
LPDP Series

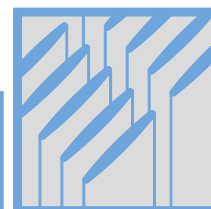
Low Pressure Drop Heat Sink
with Attachment Holes

ALPHA

ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDM25

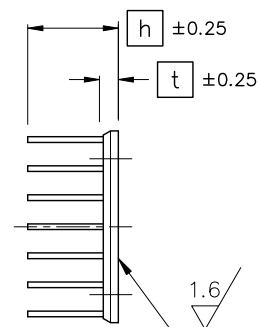
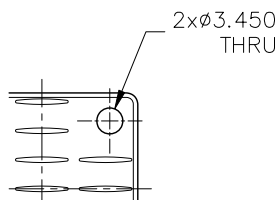
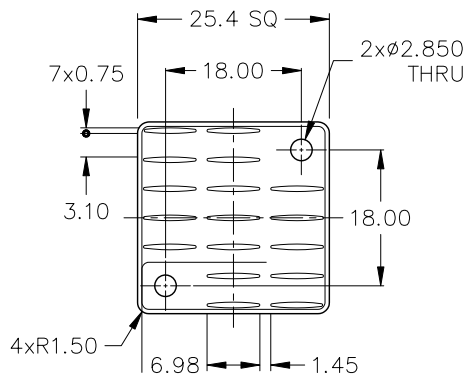


DIM



LPDM25-XXBC
FOR $\phi 2.500 \pm 0.05$ PCB HOLES

LPDM25-XXBP
FOR $\phi 3.175 \pm 0.05$ PCB HOLES



FOR $\phi 2.500 \pm 0.05$ PCB HOLES

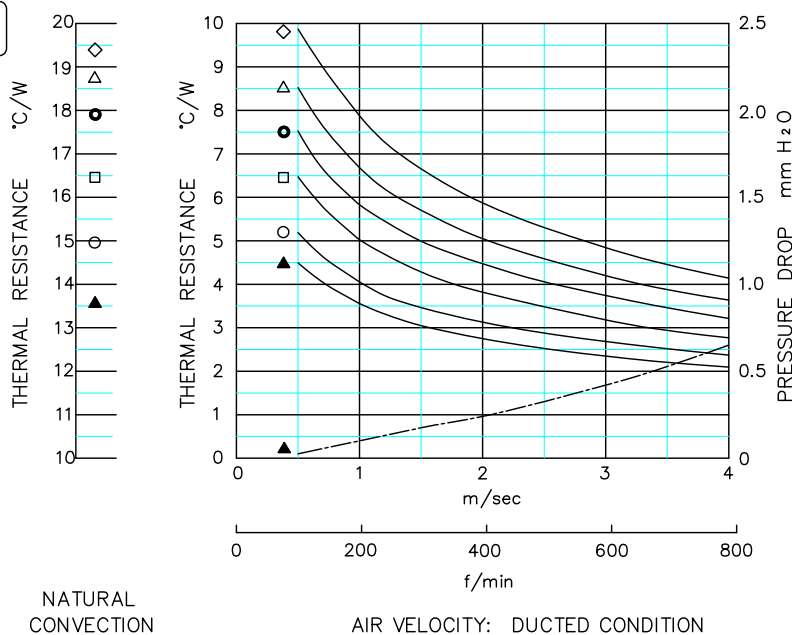
MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDM25-8BC	8	2.0	4.5
LPDM25-10BC	10	2.5	4.9
LPDM25-12BC	12		5.3
LPDM25-15BC	15		5.9
LPDM25-20BC	20		6.8
LPDM25-25BC	25		7.8

FOR $\phi 3.175 \pm 0.05$ PCB HOLES

MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDM25-8BP	8	2.0	4.5
LPDM25-10BP	10	2.5	4.9
LPDM25-12BP	12		5.2
LPDM25-15BP	15		5.8
LPDM25-20BP	20		6.8
LPDM25-25BP	25		7.8

MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

DATA



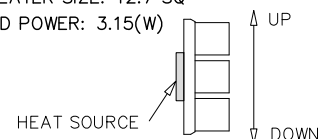
NATURAL
CONVECTION

AIR VELOCITY: DUCTED CONDITION

- ◇ LPDM25-8BC, LPDM25-8BP
- △ LPDM25-10BC, LPDM25-10BP
- LPDM25-12BC, LPDM25-12BP
- LPDM25-15BC, LPDM25-15BP
- LPDM25-20BC, LPDM25-20BP
- ▲ LPDM25-25BC, LPDM25-25BP

● DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE _____
PRESSURE DROP - - - - -

● NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 3.15(W)



NOTE ORIENTATION OF HEAT SINK USED
FOR NATURAL CONVECTION TESTING

■ BASED ON ALPHA'S STANDARD TEST
PROCEDURE.
REFER TO TECHNICAL INFORMATION.

Alpha Company Ltd.

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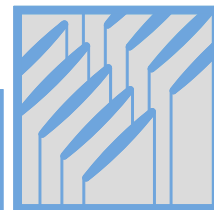
Alpha Novatech, Inc. - a subsidiary of Alpha Company.

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ALPHA

Low Pressure Drop Heat Sink with attachment holes

LPDM30

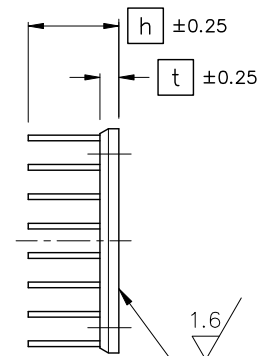
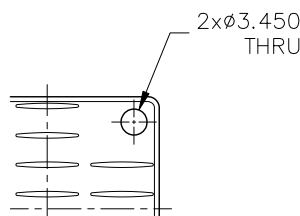
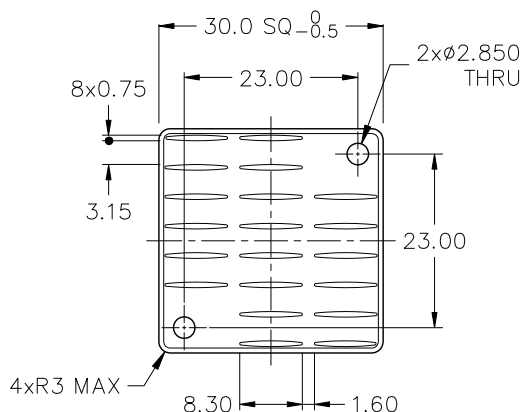


DIM



LPDM30-XXBC
FOR $\phi 2.500 \pm 0.05$ PCB HOLES

LPDM30-XXBP
FOR $\phi 3.175 \pm 0.05$ PCB HOLES



FOR $\phi 2.500 \pm 0.05$ PCB HOLES

MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDM30-8BC	8	2.5	6.2
LPDM30-10BC	10		7.8
LPDM30-12BC	12		8.4
LPDM30-15BC	15		9.2
LPDM30-20BC	20		10.6
LPDM30-25BC	25		11.9

FOR $\phi 3.175 \pm 0.05$ PCB HOLES

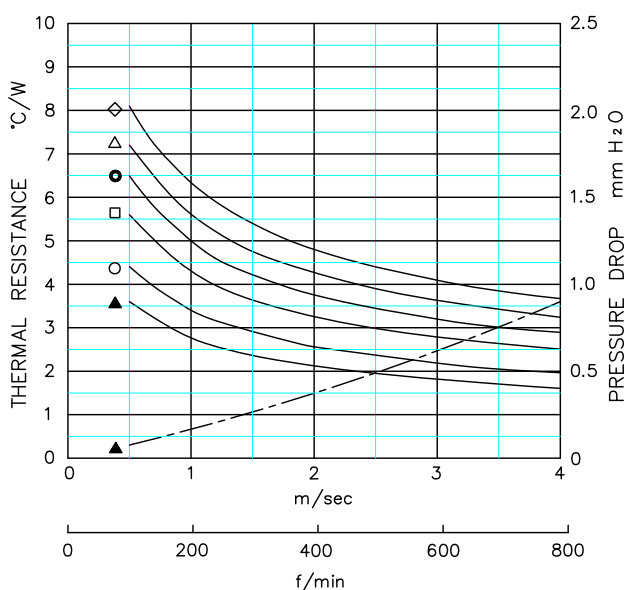
MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDM30-8BP	8	2.5	6.2
LPDM30-10BP	10		7.8
LPDM30-12BP	12		8.3
LPDM30-15BP	15		9.2
LPDM30-20BP	20		10.5
LPDM30-25BP	25		11.9

MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

DATA



NATURAL
CONVECTION

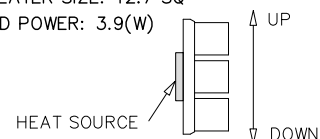


AIR VELOCITY: DUCTED CONDITION

- ◇ LPDM30-8BC, LPDM30-8BP
- △ LPDM30-10BC, LPDM30-10BP
- LPDM30-12BC, LPDM30-12BP
- LPDM30-15BC, LPDM30-15BP
- LPDM30-20BC, LPDM30-20BP
- ▲ LPDM30-25BC, LPDM30-25BP

● DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE ———
PRESSURE DROP - - -

● NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 3.9(W)



NOTE ORIENTATION OF HEAT SINK USED
FOR NATURAL CONVECTION TESTING

■ BASED ON ALPHA'S STANDARD TEST
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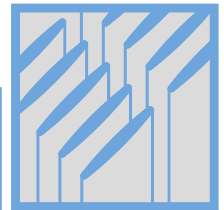
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ALPHA

Low Pressure Drop Heat Sink with attachment holes

LPDM35

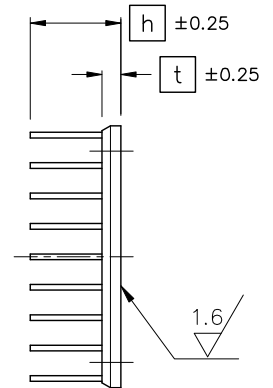
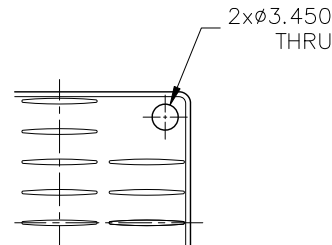
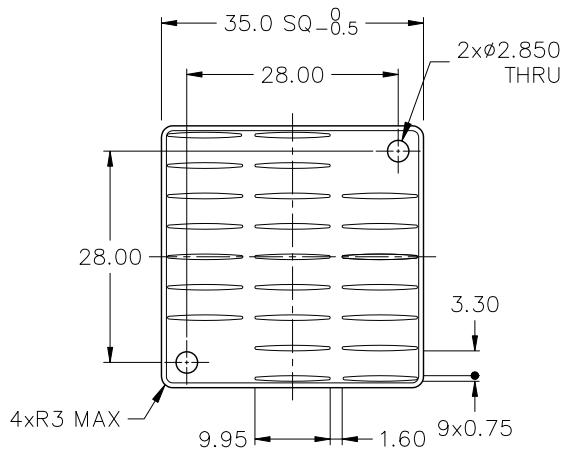


DIM



LPDM35-XXBC
FOR $\varnothing 2.500 \pm 0.05$ PCB HOLES

LPDM35-XXBP
FOR $\varnothing 3.175 \pm 0.05$ PCB HOLES



FOR $\varnothing 2.500 \pm 0.05$ PCB HOLES

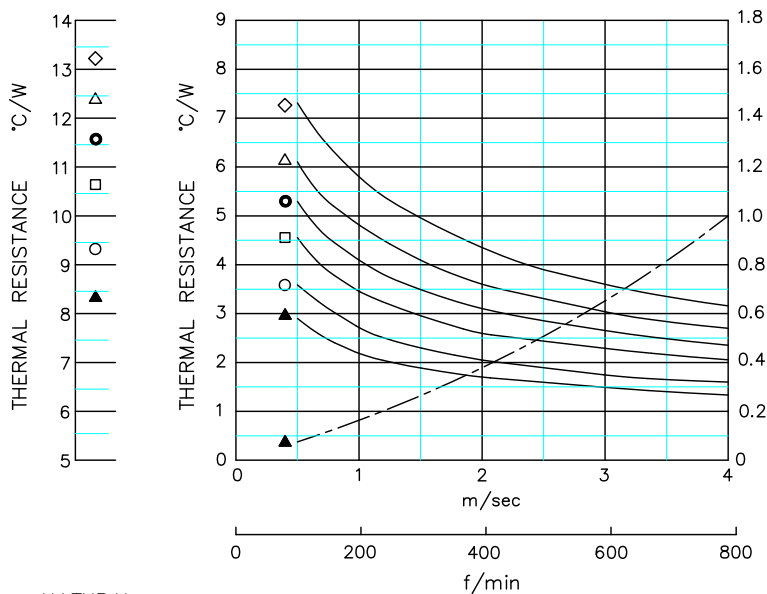
MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDM35-8BC	8	3.0	8.6
LPDM35-10BC	10		12.2
LPDM35-12BC	12		13.0
LPDM35-15BC	15		14.1
LPDM35-20BC	20		16.0
LPDM35-25BC	25		17.9

FOR $\varnothing 3.175 \pm 0.05$ PCB HOLES

MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDM35-8BP	8	3.0	8.6
LPDM35-10BP	10		12.2
LPDM35-12BP	12		12.9
LPDM35-15BP	15		14.0
LPDM35-20BP	20		15.9
LPDM35-25BP	25		17.8

MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

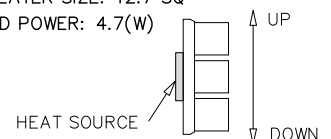
DATA



- ◇ LPDM35-8BC, LPDM35-8BP
- △ LPDM35-10BC, LPDM35-10BP
- LPDM35-12BC, LPDM35-12BP
- LPDM35-15BC, LPDM35-15BP
- LPDM35-20BC, LPDM35-20BP
- ▲ LPDM35-25BC, LPDM35-25BP

● DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE ———
PRESSURE DROP - - - - -

● NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 4.7(W)



NOTE ORIENTATION OF HEAT SINK USED
FOR NATURAL CONVECTION TESTING

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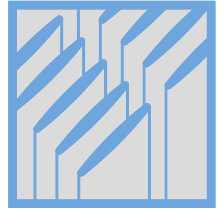
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ALPHA

Low Pressure Drop Heat Sink with attachment holes

LPDM40

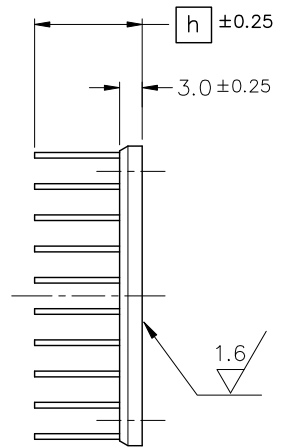
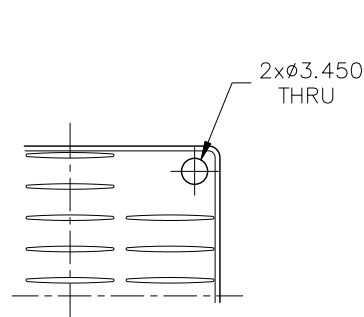
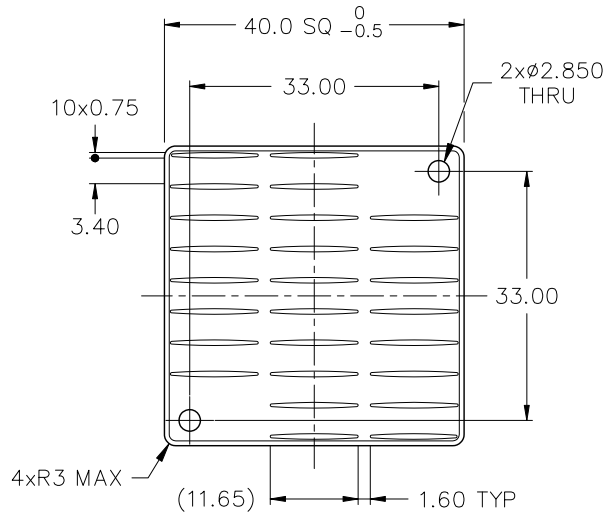


DIM



LPDM40-XXBC
FOR $\phi 2.500 \pm 0.05$ PCB HOLES

LPDM40-XXBP
FOR $\phi 3.175 \pm 0.05$ PCB HOLES



FOR $\phi 2.500 \pm 0.05$ PCB HOLES

MODEL	HEIGHT [h]	WEIGHT(g)
LPDM40-10BC	10	16.0
LPDM40-12BC	12	17.0
LPDM40-15BC	15	18.5
LPDM40-20BC	20	21.0
LPDM40-25BC	25	23.5
LPDM40-30BC	30	26.0
LPDM40-35BC	35	28.5

FOR $\phi 3.175 \pm 0.05$ PCB HOLES

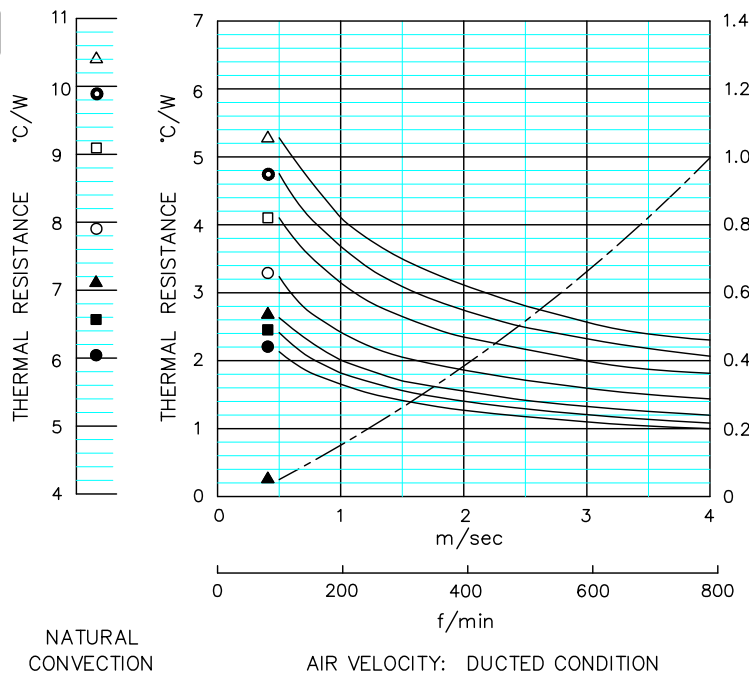
MODEL	HEIGHT [h]	WEIGHT(g)
LPDM40-10BP	10	16.0
LPDM40-12BP	12	17.0
LPDM40-15BP	15	18.5
LPDM40-20BP	20	20.9
LPDM40-25BP	25	23.4
LPDM40-30BP	30	25.9
LPDM40-35BP	35	28.4

MATERIAL : A 6063

FINISH : BLACK ANODIZE

DIMENSIONS : mm

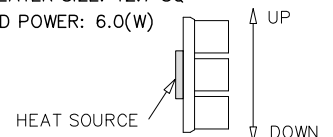
DATA



- △ LPDM40-10BC, LPDM40-10BP
- LPDM40-12BC, LPDM40-12BP
- LPDM40-15BC, LPDM40-15BP
- LPDM40-20BC, LPDM40-20BP
- ▲ LPDM40-25BC, LPDM40-25BP
- LPDM40-30BC, LPDM40-30BP
- LPDM40-35BC, LPDM40-35BP

● DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE ———
PRESSURE DROP - - - -

● NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 6.0(W)



NOTE ORIENTATION OF HEAT SINK USED
FOR NATURAL CONVECTION TESTING

■ BASED ON ALPHA'S STANDARD TEST
PROCEDURE.
REFER TO TECHNICAL INFORMATION.

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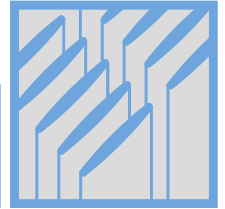
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ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDM 45

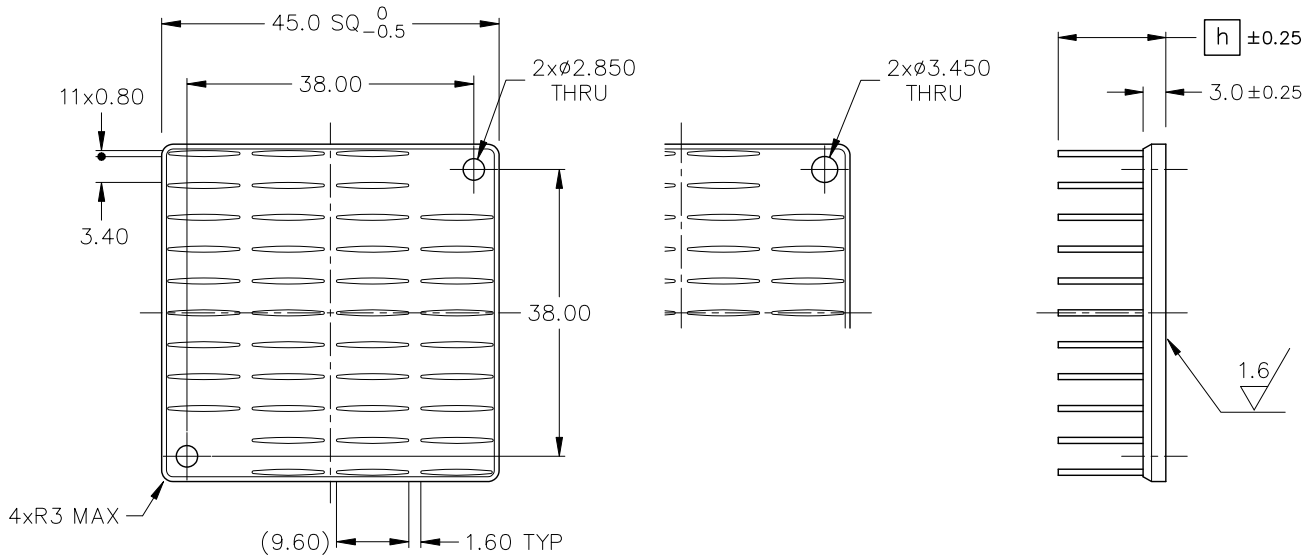


DIM



LPDM45-XXBC
FOR $\phi 2.500 \pm 0.05$ PCB HOLES

LPDM45-XXBP
FOR $\phi 3.175 \pm 0.05$ PCB HOLES



FOR $\phi 2.500 \pm 0.05$ PCB HOLES

MODEL	HEIGHT [h]	WEIGHT(g)
LPDM45-10BC	10	20.6
LPDM45-12BC	12	21.9
LPDM45-15BC	15	23.9
LPDM45-20BC	20	27.2
LPDM45-25BC	25	30.5
LPDM45-30BC	30	33.8
LPDM45-35BC	35	37.1

FOR $\phi 3.175 \pm 0.05$ PCB HOLES

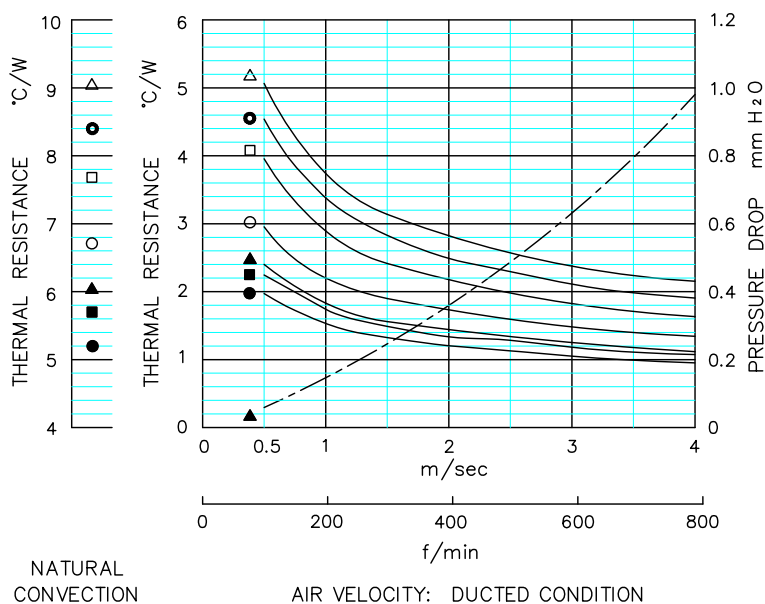
MODEL	HEIGHT [h]	WEIGHT(g)
LPDM45-10BP	10	20.5
LPDM45-12BP	12	21.8
LPDM45-15BP	15	23.8
LPDM45-20BP	20	27.1
LPDM45-25BP	25	30.4
LPDM45-30BP	30	33.7
LPDM45-35BP	35	37.1

MATERIAL : A 6063

FINISH : BLACK ANODIZE

DIMENSIONS : mm

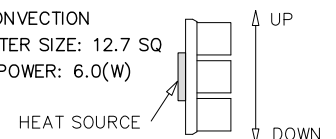
DATA



- △ LPDM45-10BC, LPDM45-10BP
- LPDM45-12BC, LPDM45-12BP
- LPDM45-15BC, LPDM45-15BP
- LPDM45-20BC, LPDM45-20BP
- ▲ LPDM45-25BC, LPDM45-25BP
- LPDM45-30BC, LPDM45-30BP
- LPDM45-35BC, LPDM45-35BP

● DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE ———
PRESSURE DROP - - - - -

● NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 6.0(W)



NOTE ORIENTATION OF HEAT SINK USED
FOR NATURAL CONVECTION TESTING

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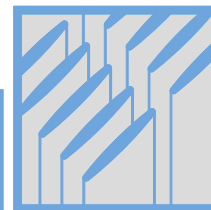
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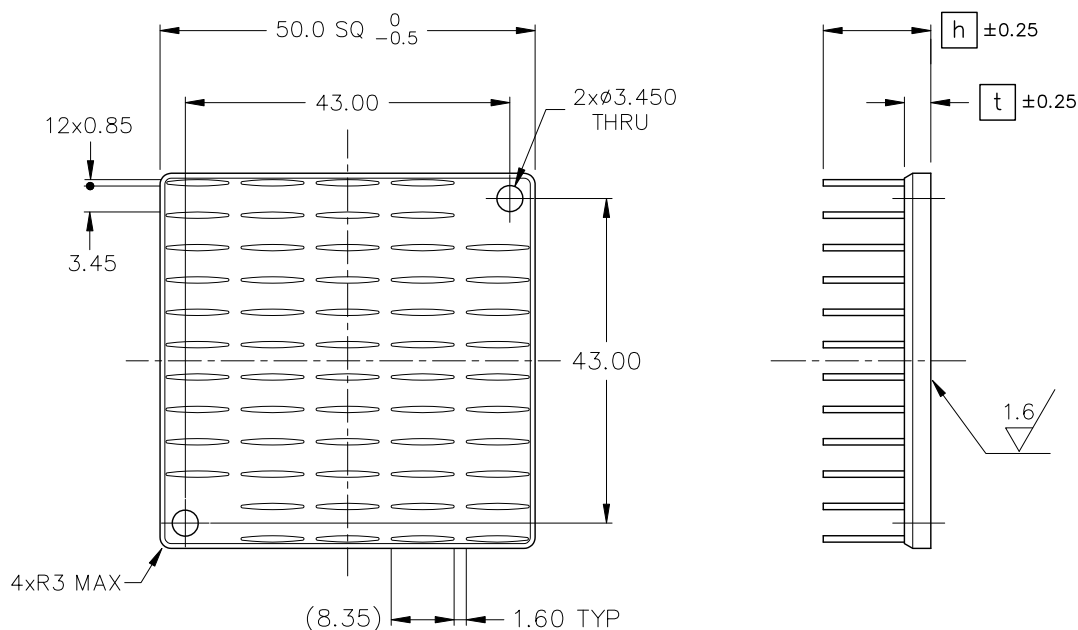
ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDM 50



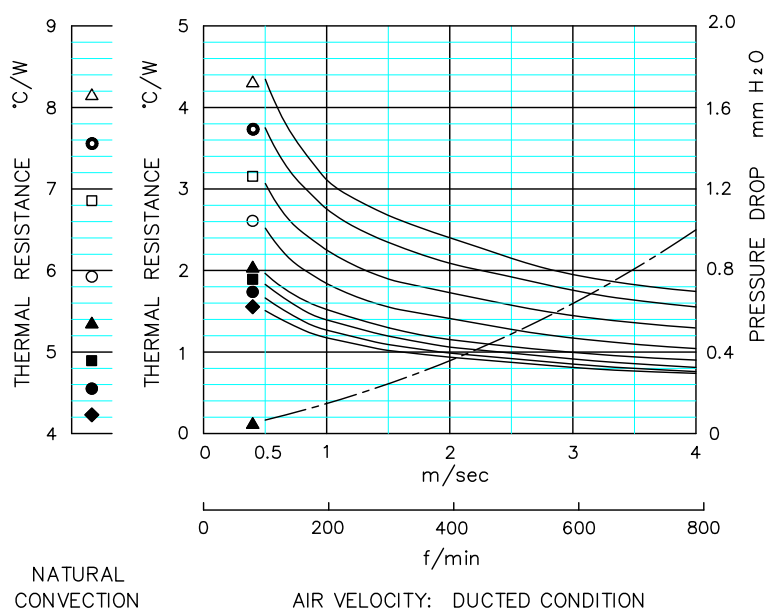
DIM



MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDM50-10BP	10	3.0	25.6
LPDM50-12BP	12		27.2
LPDM50-15BP	15		32.6
LPDM50-20BP	20	3.5	36.8
LPDM50-25BP	25		41.0
LPDM50-30BP	30		45.7
LPDM50-35BP	35		50.0
LPDM50-40BP	40		54.2

MATERIAL : A 6063
 FINISH : BLACK ANODIZE
 DIMENSIONS : mm

DATA



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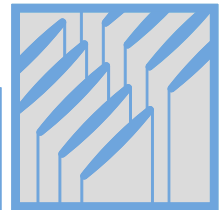
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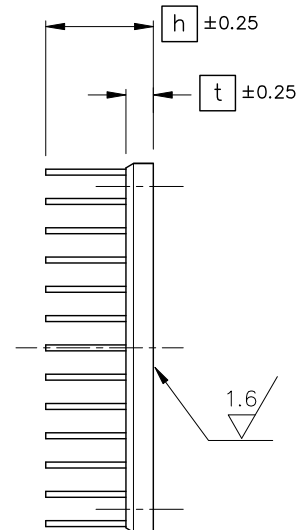
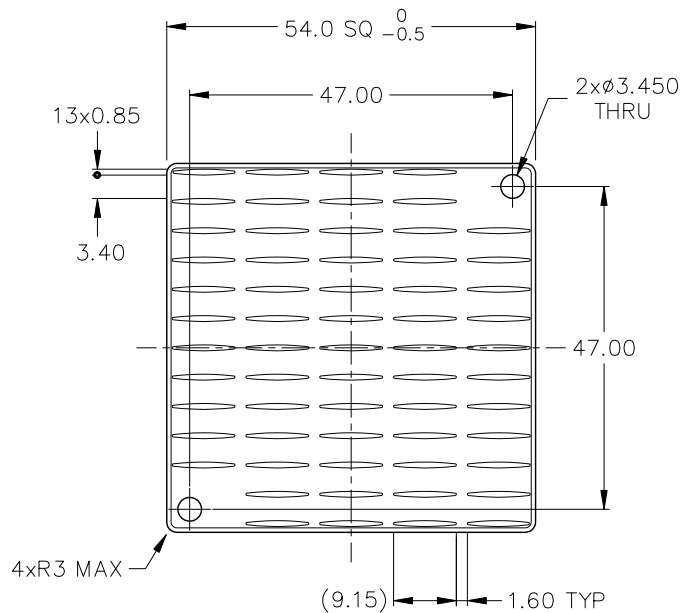
ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDM 54



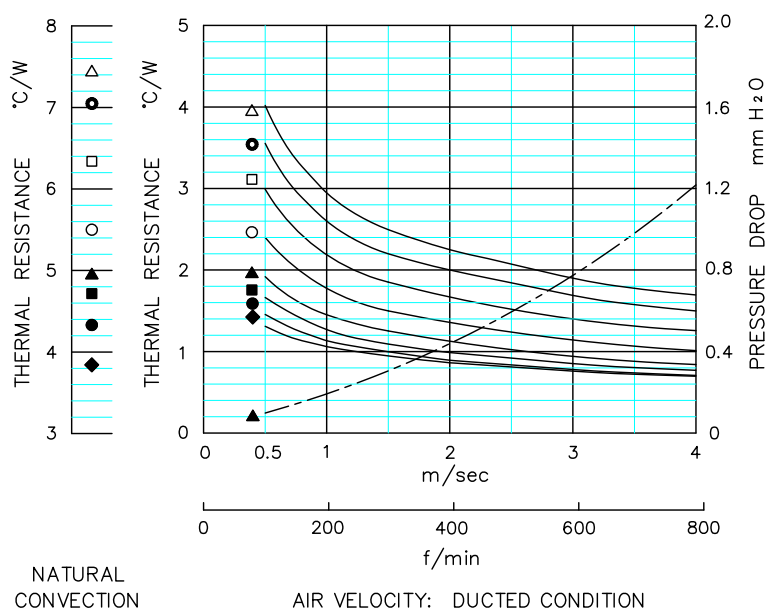
DIM



MODEL	HEIGHT [h]	THICKNESS [t]	WEIGHT(g)
LPDM54-10BP	10	3.0	30.0
LPDM54-12BP	12		32.0
LPDM54-15BP	15		41.8
LPDM54-20BP	20		46.8
LPDM54-25BP	25		51.8
LPDM54-30BP	30		57.4
LPDM54-35BP	35		62.5
LPDM54-40BP	40		67.5

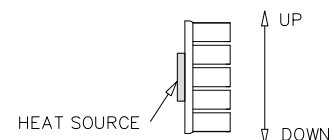
MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

DATA



- △ LPDM54-10BP
- LPDM54-12BP
- LPDM54-15BP
- LPDM54-20BP
- ▲ LPDM54-25BP
- LPDM54-30BP
- LPDM54-35BP
- ◆ LPDM54-40BP

- DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE _____
PRESSURE DROP - - - - -
- NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 8.0(W)



NOTE ORIENTATION OF HEAT SINK USED FOR NATURAL CONVECTION TESTING

- BASED ON ALPHA'S STANDARD TEST PROCEDURE.
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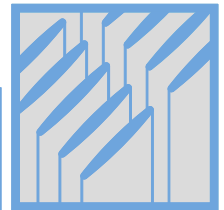
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473 Sapena Ct. #12 Santa Clara, CA 95054 USA
PHONE +1(408)567-8082
FAX +1(408)567-8053
E mail : sales@alphanovatech.com
URL : https://www.alphanovatech.com

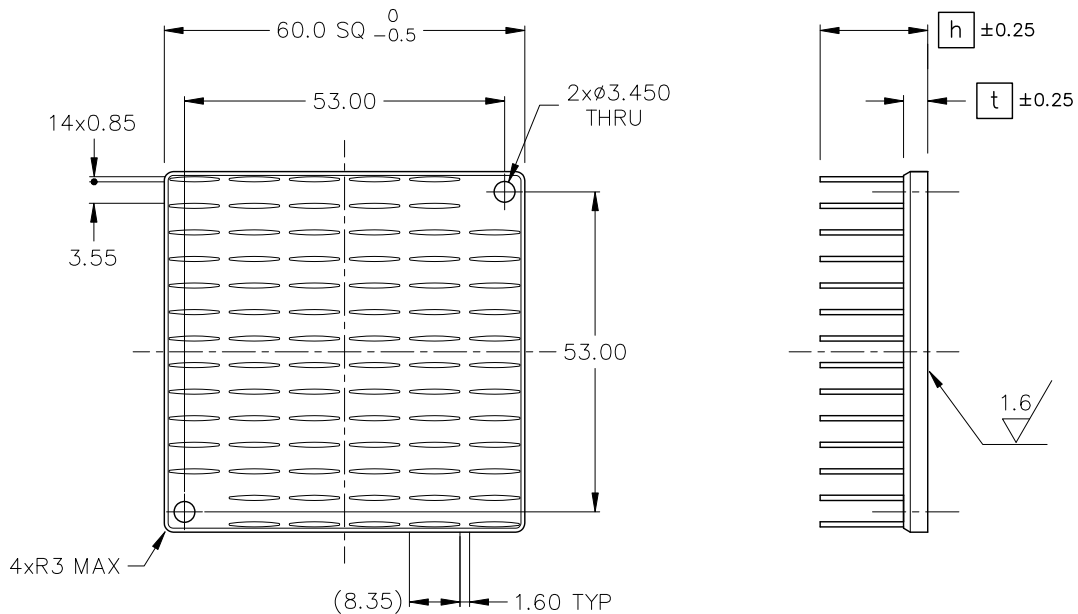
ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDM 60



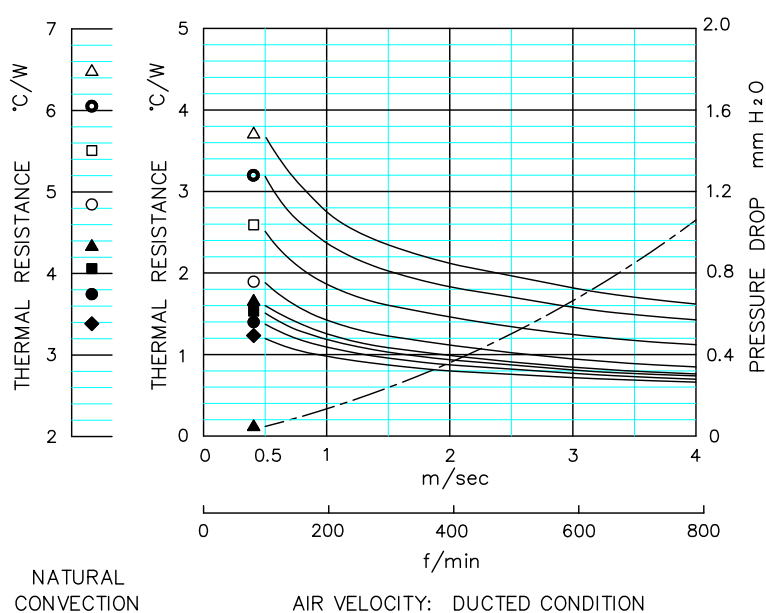
DIM



MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDM60-10BP	10	3.0	36.8
LPDM60-12BP	12		39.2
LPDM60-15BP	15		51.2
LPDM60-20BP	20	4.0	57.3
LPDM60-25BP	25		63.3
LPDM60-30BP	30		69.9
LPDM60-35BP	35		76.0
LPDM60-40BP	40		82.0

MATERIAL : A 6063
 FINISH : BLACK ANODIZE
 DIMENSIONS : mm

DATA



Alpha Company Ltd.

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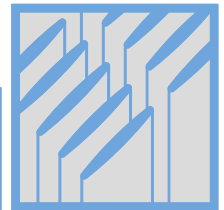
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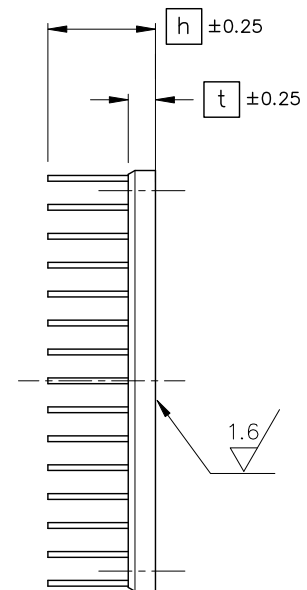
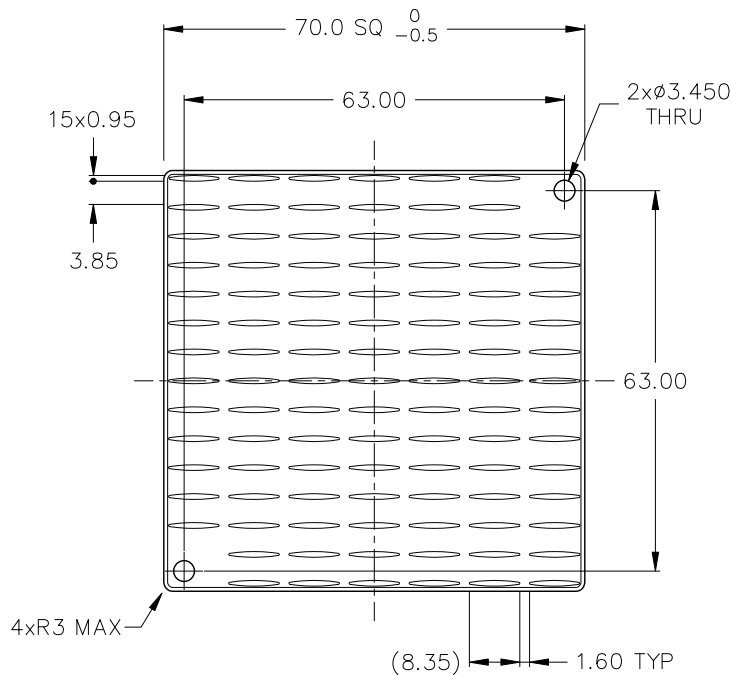
ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDM 70



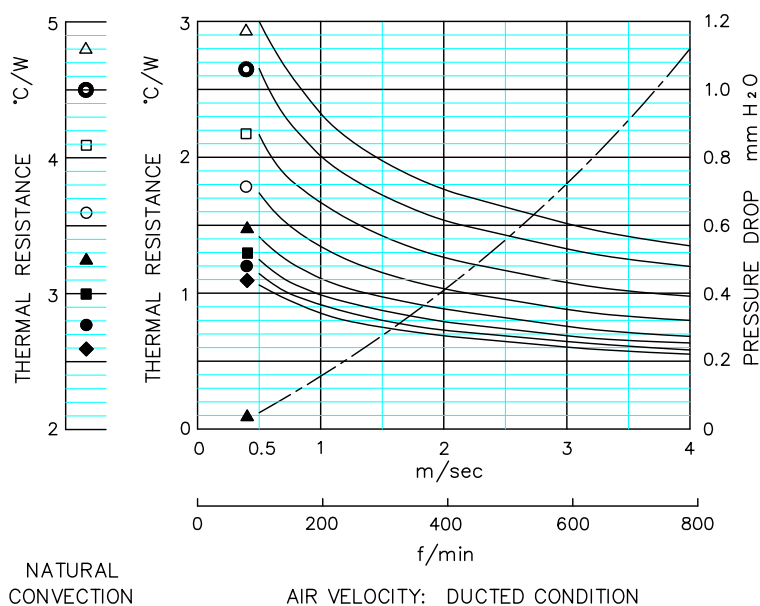
DIM



MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDM70-10BP	10	3.0	52.0
LPDM70-12BP	12		62.6
LPDM70-15BP	15		70.9
LPDM70-20BP	20	4.0	78.8
LPDM70-25BP	25		86.8
LPDM70-30BP	30		97.7
LPDM70-35BP	35		106.4
LPDM70-40BP	40		115.2

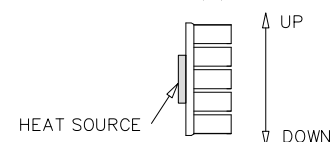
MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

DATA



- △ LPDM70-10BP
- LPDM70-12BP
- LPDM70-15BP
- LPDM70-20BP
- ▲ LPDM70-25BP
- LPDM70-30BP
- LPDM70-35BP
- ◆ LPDM70-40BP

- DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE _____
PRESSURE DROP - - - - -
- NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 8.0(W)



NOTE ORIENTATION OF HEAT SINK USED FOR NATURAL CONVECTION TESTING

- BASED ON ALPHA'S STANDARD TEST PROCEDURE.
REFER TO TECHNICAL INFORMATION.

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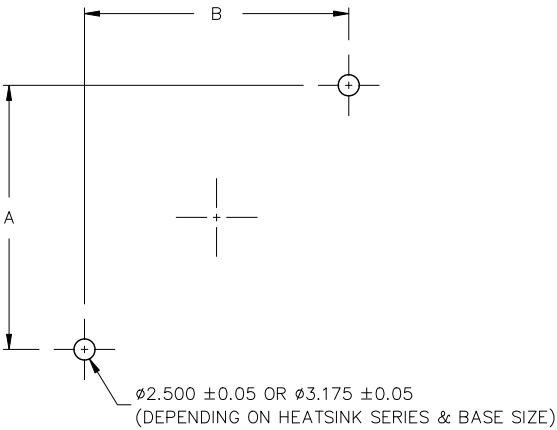
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REF



PCB HOLE LAYOUT

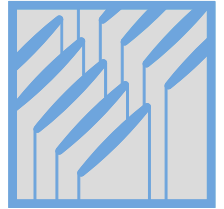


LPDM25, UBM25, ZM25	18.0	18.0
LPDM30, UBM30, ZM30	23.0	23.0
LPDM35, UBM35, ZM35	28.0	28.0
LPDM40, UBM40, ZM40	33.0	33.0
LPDM45, UBM45, ZM45	38.0	38.0
LPDM50, UBM50, ZM50, FFM50	43.0	43.0
LPDM54, UBM54, ZM54, FFM54	47.0	47.0
LPDM60, UBM60, ZM60	53.0	53.0
LPDM70, UBM70	63.0	63.0
MODEL	A	B

ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDH 25

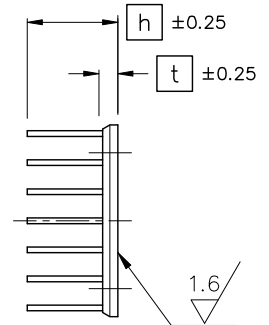
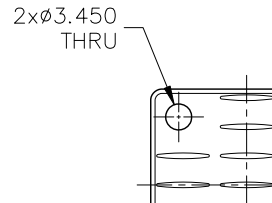
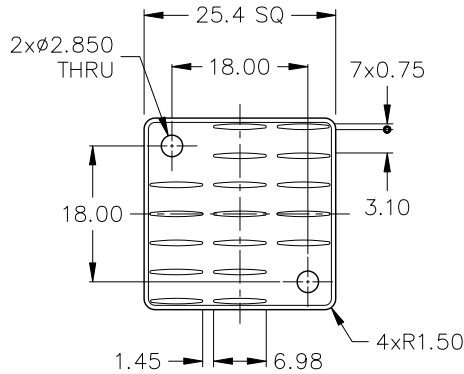


DIM



LPDH25-XXBC
FOR $\phi 2.500 \pm 0.05$ PCB HOLES

LPDH25-XXBP
FOR $\phi 3.175 \pm 0.05$ PCB HOLES



FOR $\phi 2.500 \pm 0.05$ PCB HOLES

MODEL	HEIGHT [h]	THICKNESS [t]	WEIGHT(g)
LPDH25-8BC	8	2.0	4.5
LPDH25-10BC	10	2.5	4.9
LPDH25-12BC	12		5.3
LPDH25-15BC	15		5.9
LPDH25-20BC	20		6.8
LPDH25-25BC	25		7.8

FOR $\phi 3.175 \pm 0.05$ PCB HOLES

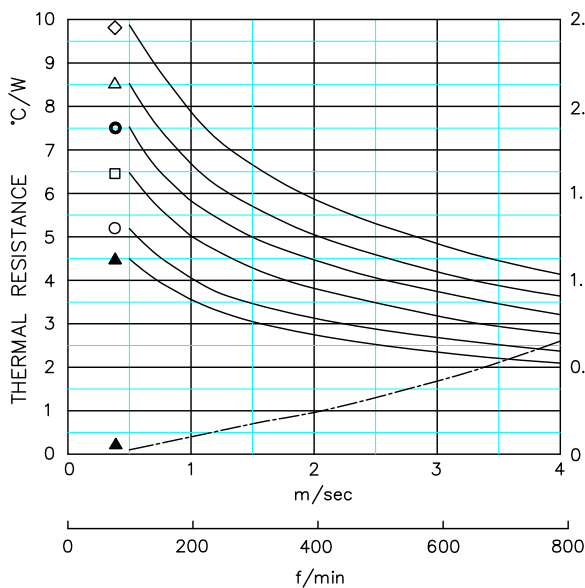
MODEL	HEIGHT [h]	THICKNESS [t]	WEIGHT(g)
LPDH25-8BP	8	2.0	4.5
LPDH25-10BP	10	2.5	4.9
LPDH25-12BP	12		5.2
LPDH25-15BP	15		5.8
LPDH25-20BP	20		6.8
LPDH25-25BP	25		7.8

MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

DATA



NATURAL
CONVECTION

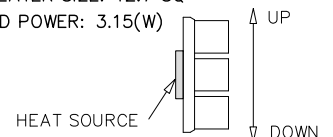


AIR VELOCITY: DUCTED CONDITION

- ◇ LPDH25-8BC, LPDH25-8BP
- △ LPDH25-10BC, LPDH25-10BP
- LPDH25-12BC, LPDH25-12BP
- LPDH25-15BC, LPDH25-15BP
- LPDH25-20BC, LPDH25-20BP
- ▲ LPDH25-25BC, LPDH25-25BP

● DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE ———
PRESSURE DROP - - -

● NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 3.15(W)



NOTE ORIENTATION OF HEAT SINK USED
FOR NATURAL CONVECTION TESTING

■ BASED ON ALPHA'S STANDARD TEST
PROCEDURE.
REFER TO TECHNICAL INFORMATION.

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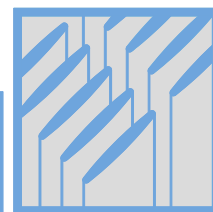
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ALPHA

Low Pressure Drop Heat Sink with attachment holes

LPDH 30

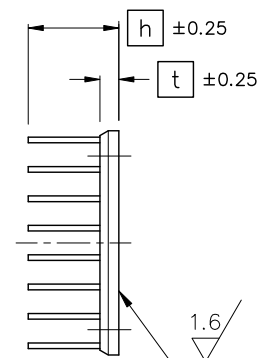
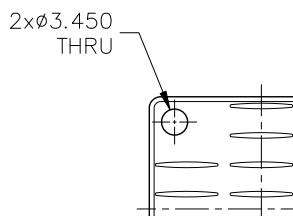
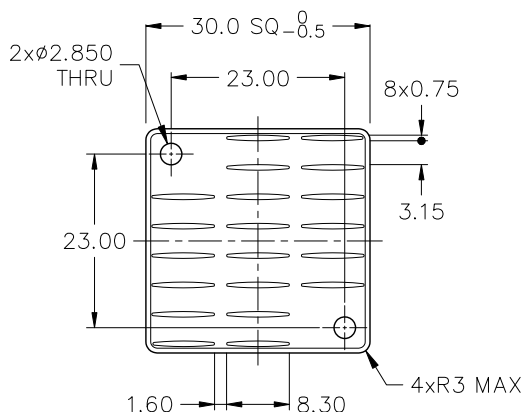


DIM



LPDH30-XXBC
FOR $\varnothing 2.500 \pm 0.05$ PCB HOLES

LPDH30-XXBP
FOR $\varnothing 3.175 \pm 0.05$ PCB HOLES



FOR $\varnothing 2.500 \pm 0.05$ PCB HOLES

MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDH30-8BC	8	2.5	6.2
LPDH30-10BC	10		7.8
LPDH30-12BC	12		8.4
LPDH30-15BC	15		9.2
LPDH30-20BC	20		10.6
LPDH30-25BC	25		11.9

FOR $\varnothing 3.175 \pm 0.05$ PCB HOLES

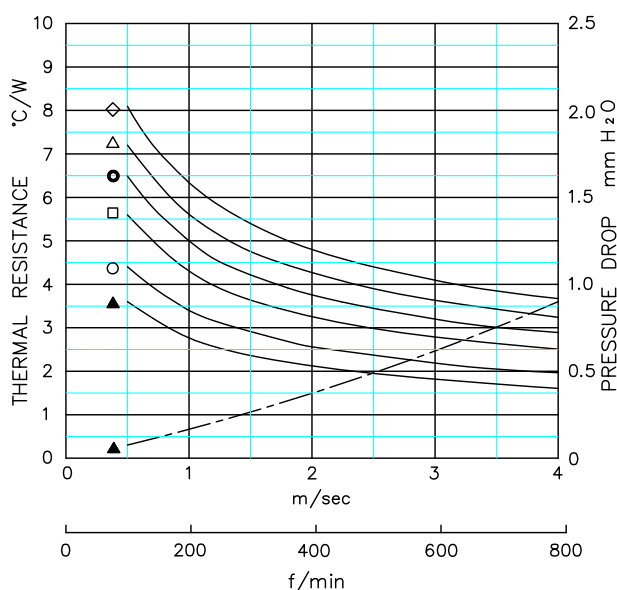
MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDH30-8BP	8	2.5	6.2
LPDH30-10BP	10		7.8
LPDH30-12BP	12		8.3
LPDH30-15BP	15		9.2
LPDH30-20BP	20		10.5
LPDH30-25BP	25		11.9

MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

DATA



NATURAL
CONVECTION

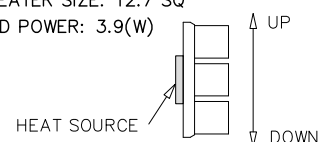


AIR VELOCITY: DUCTED CONDITION

- ◇ LPDH30-8BC, LPDH30-8BP
- △ LPDH30-10BC, LPDH30-10BP
- LPDH30-12BC, LPDH30-12BP
- LPDH30-15BC, LPDH30-15BP
- LPDH30-20BC, LPDH30-20BP
- ▲ LPDH30-25BC, LPDH30-25BP

● DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE ———
PRESSURE DROP - - - - -

● NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 3.9(W)



NOTE ORIENTATION OF HEAT SINK USED
FOR NATURAL CONVECTION TESTING

■ BASED ON ALPHA'S STANDARD TEST
PROCEDURE.
REFER TO TECHNICAL INFORMATION.

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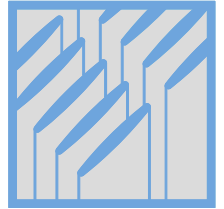
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ALPHA

Low Pressure Drop Heat Sink with attachment holes

LPDH 35

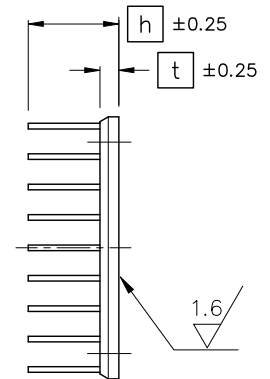
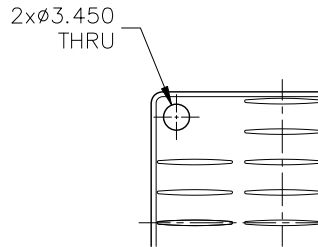
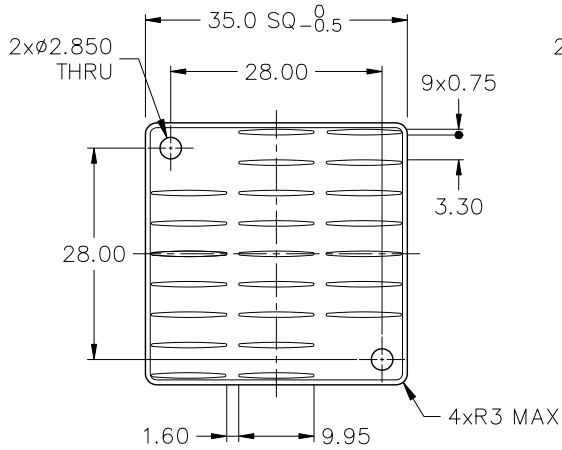


DIM



LPDH35-XXBC
FOR $\phi 2.500 \pm 0.05$ PCB HOLES

LPDH35-XXBP
FOR $\phi 3.175 \pm 0.05$ PCB HOLES



FOR $\phi 2.500 \pm 0.05$ PCB HOLES

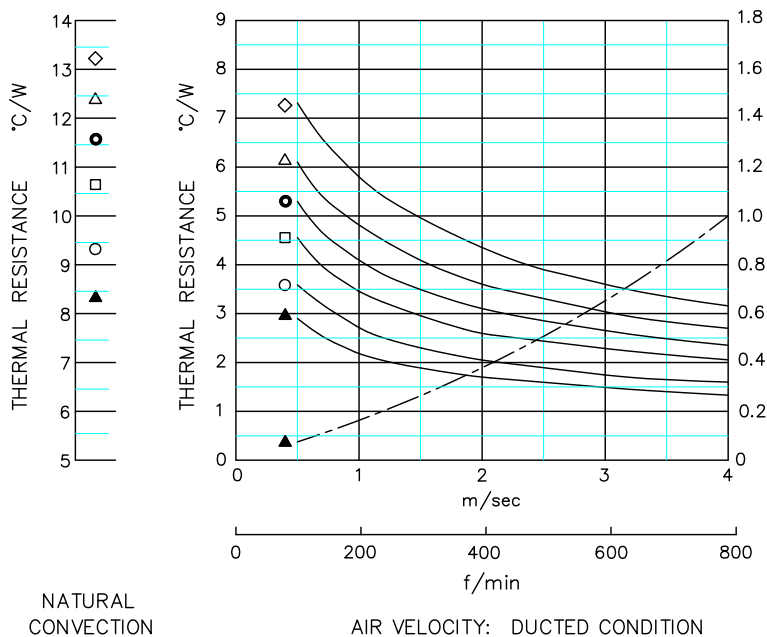
MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDH35-8BC	8	2.0	8.6
LPDH35-10BC	10	3.0	12.2
LPDH35-12BC	12		13.0
LPDH35-15BC	15		14.1
LPDH35-20BC	20		16.0
LPDH35-25BC	25		17.9

FOR $\phi 3.175 \pm 0.05$ PCB HOLES

MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDH35-8BP	8	2.0	8.6
LPDH35-10BP	10	3.0	12.2
LPDH35-12BP	12		12.9
LPDH35-15BP	15		14.0
LPDH35-20BP	20		15.9
LPDH35-25BP	25		17.8

MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

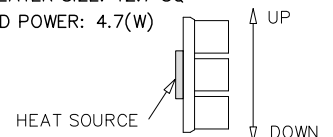
DATA



- ◇ LPDH35-8BC, LPDH35-8BP
- △ LPDH35-10BC, LPDH35-10BP
- LPDH35-12BC, LPDH35-12BP
- LPDH35-15BC, LPDH35-15BP
- LPDH35-20BC, LPDH35-20BP
- ▲ LPDH35-25BC, LPDH35-25BP

● DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE ———
PRESSURE DROP - - - -

● NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 4.7(W)



NOTE ORIENTATION OF HEAT SINK USED
FOR NATURAL CONVECTION TESTING

■ BASED ON ALPHA'S STANDARD TEST
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ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDH 40

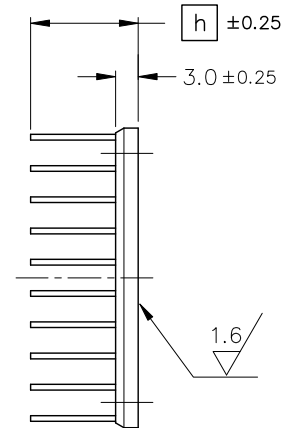
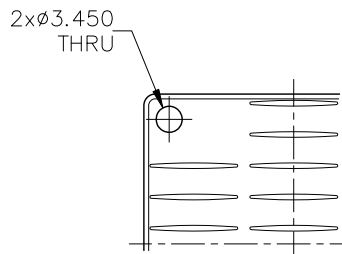
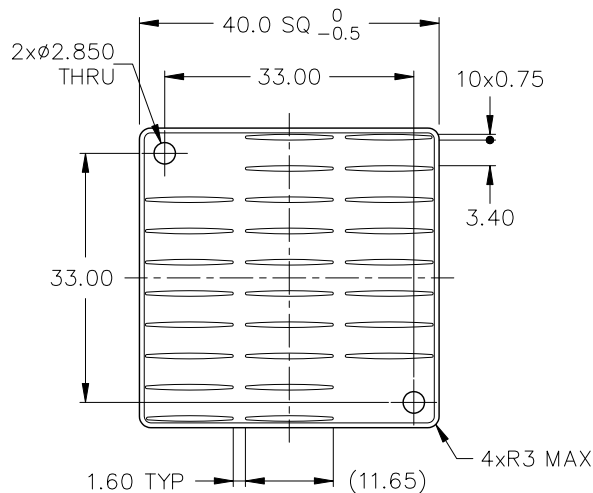


DIM



LPDH40-XXBC
FOR $\phi 2.500 \pm 0.05$ PCB HOLES

LPDH40-XXBP
FOR $\phi 3.175 \pm 0.05$ PCB HOLES



FOR $\phi 2.500 \pm 0.05$ PCB HOLES

MODEL	HEIGHT	h	WEIGHT(g)
LPDH40-10BC	10		16.0
LPDH40-12BC	12		17.0
LPDH40-15BC	15		18.5
LPDH40-20BC	20		21.0
LPDH40-25BC	25		23.5
LPDH40-30BC	30		26.0
LPDH40-35BC	35		28.5

FOR $\phi 3.175 \pm 0.05$ PCB HOLES

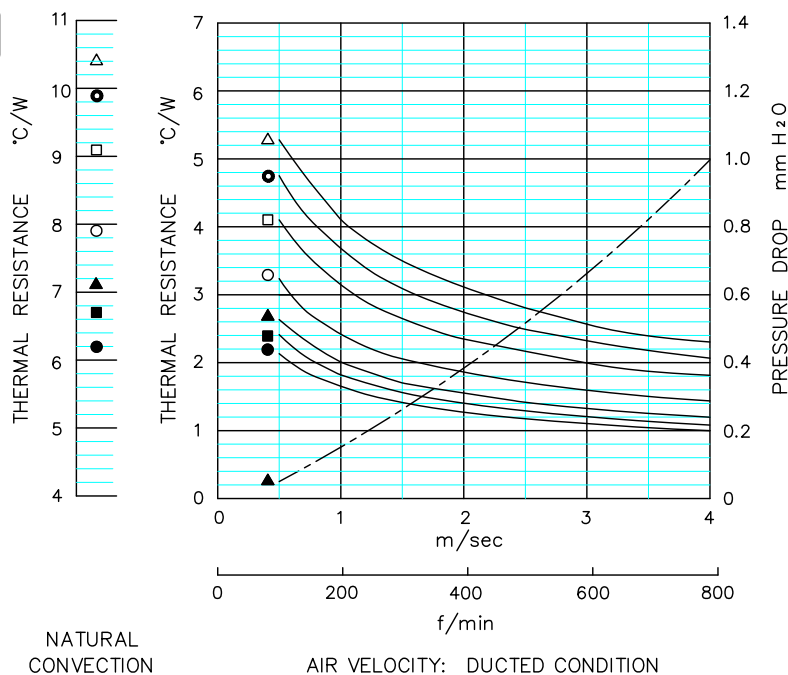
MODEL	HEIGHT	h	WEIGHT(g)
LPDH40-10BP	10		16.0
LPDH40-12BP	12		17.0
LPDH40-15BP	15		18.5
LPDH40-20BP	20		20.9
LPDH40-25BP	25		23.4
LPDH40-30BP	30		25.9
LPDH40-35BP	35		28.4

MATERIAL : A 6063

FINISH : BLACK ANODIZE

DIMENSIONS : mm

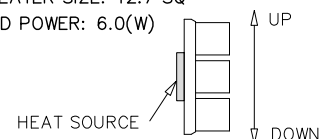
DATA



- △ LPDH40-10BC, LPDH40-10BP
- LPDH40-12BC, LPDH40-12BP
- LPDH40-15BC, LPDH40-15BP
- LPDH40-20BC, LPDH40-20BP
- ▲ LPDH40-25BC, LPDH40-25BP
- LPDH40-30BC, LPDH40-30BP
- LPDH40-35BC, LPDH40-35BP

DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE
PRESSURE DROP

NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 6.0(W)



NOTE ORIENTATION OF HEAT SINK USED
FOR NATURAL CONVECTION TESTING

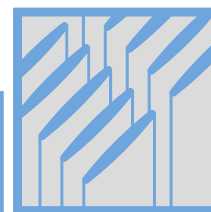
BASED ON ALPHA'S STANDARD TEST
PROCEDURE.
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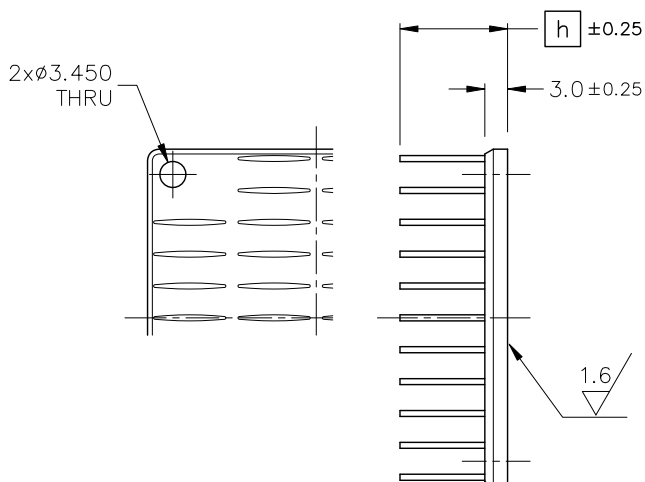
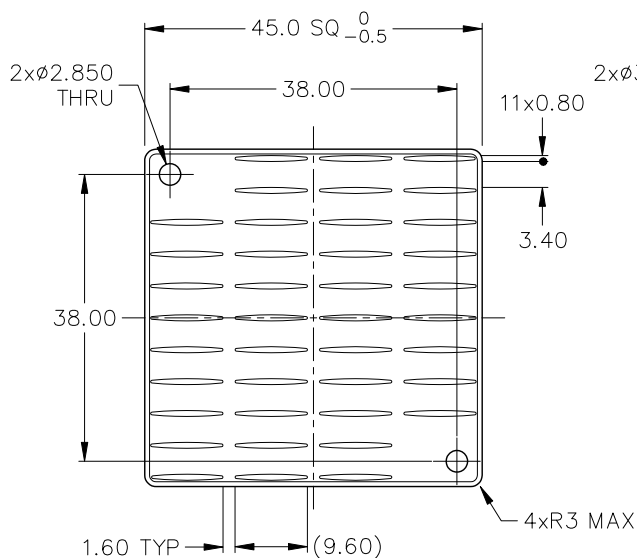


DIM



LPDH45-XXBC
FOR $\varnothing 2.500 \pm 0.05$ PCB HOLES

LPDH45-XXBP
FOR $\varnothing 3.175 \pm 0.05$ PCB HOLES



FOR $\varnothing 2.500 \pm 0.05$ PCB HOLES

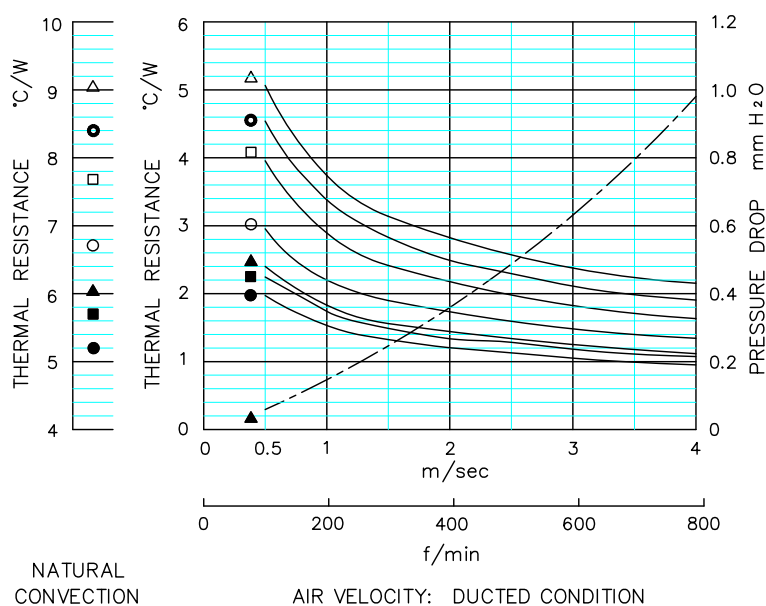
FOR $\phi 3.175 \pm 0.05$ PCB HOLES

MODEL	HEIGHT h	WEIGHT(g)
LPDH45-10BC	10	20.6
LPDH45-12BC	12	21.9
LPDH45-15BC	15	23.9
LPDH45-20BC	20	27.2
LPDH45-25BC	25	30.5
LPDH45-30BC	30	33.8
LPDH45-35BC	35	37.1

MODEL	HEIGHT	h	WEIGHT(g)
LPDH45-10BP	10		20.5
LPDH45-12BP	12		21.8
LPDH45-15BP	15		23.8
LPDH45-20BP	20		27.1
LPDH45-25BP	25		30.4
LPDH45-30BP	30		33.7
LPDH45-35BP	35		37.1

MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

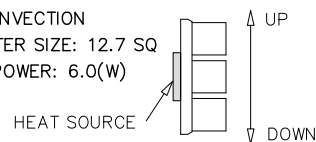
DATA



- | | |
|---|--------------------------|
| △ | LPDH45-10BC, LPDH45-10BP |
| ● | LPDH45-12BC, LPDH45-12BP |
| □ | LPDH45-15BC, LPDH45-15BP |
| ○ | LPDH45-20BC, LPDH45-20BP |
| ▲ | LPDH45-25BC, LPDH45-25BP |
| ■ | LPDH45-30BC, LPDH45-30BP |
| ● | LPDH45-35BC, LPDH45-35BP |

- DUCTED CONDITION
 DUMMY HEATER SIZE: 12.7 SQ
 THERMAL RESISTANCE _____
 PRESURE DROP _____

- NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 6.0(W)



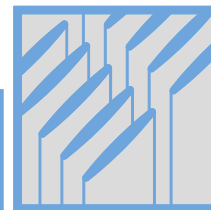
NOTE ORIENTATION OF HEAT SINK USED
FOR NATURAL CONVECTION TESTING

■ BASED ON ALPHA'S STANDARD TEST PROCEDURE.
REFER TO TECHNICAL INFORMATION.

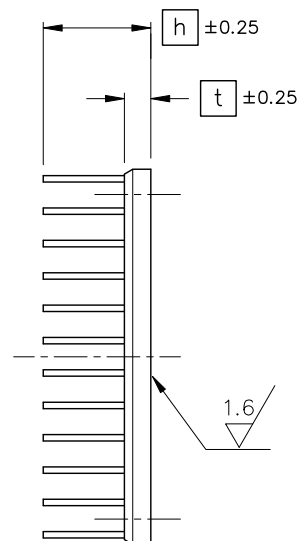
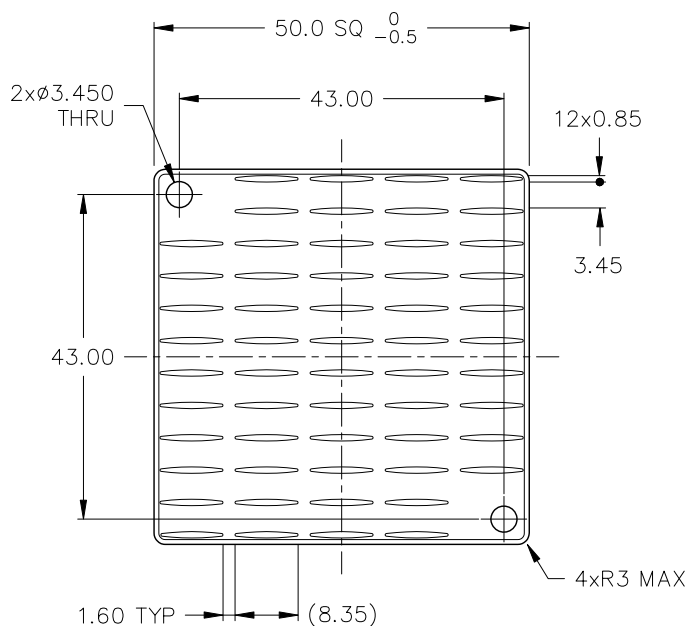
ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDH 50



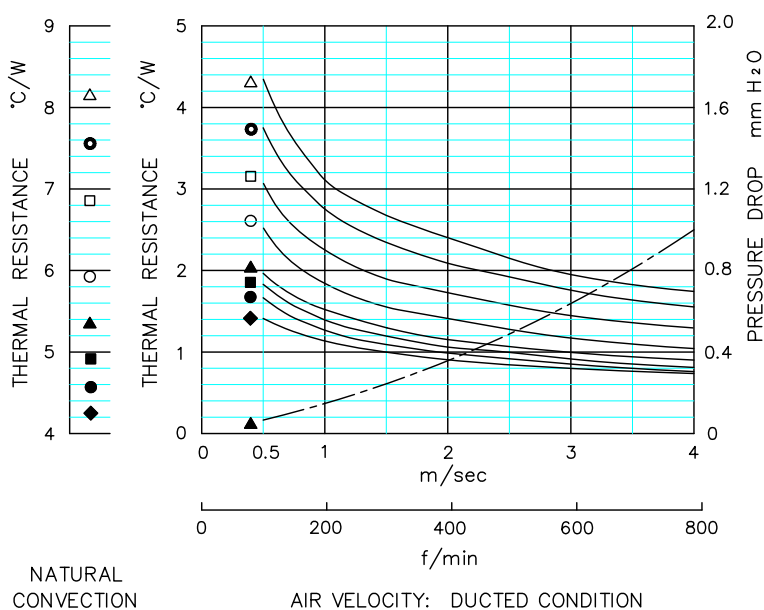
DIM



MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDH50-10BP	10	3.0	25.6
LPDH50-12BP	12		27.2
LPDH50-15BP	15		32.6
LPDH50-20BP	20	3.5	36.8
LPDH50-25BP	25		41.0
LPDH50-30BP	30		45.7
LPDH50-35BP	35		50.0
LPDH50-40BP	40		54.2

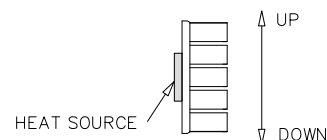
MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

DATA



- △ LPDH50-10BP
- LPDH50-12BP
- LPDH50-15BP
- LPDH50-20BP
- ▲ LPDH50-25BP
- LPDH50-30BP
- LPDH50-35BP
- ◆ LPDH50-40BP

- DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE _____
PRESSURE DROP - - - - -
- NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 8.0(W)



NOTE ORIENTATION OF HEAT SINK USED FOR NATURAL CONVECTION TESTING

- BASED ON ALPHA'S STANDARD TEST PROCEDURE.
REFER TO TECHNICAL INFORMATION.

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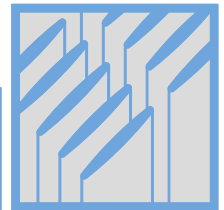
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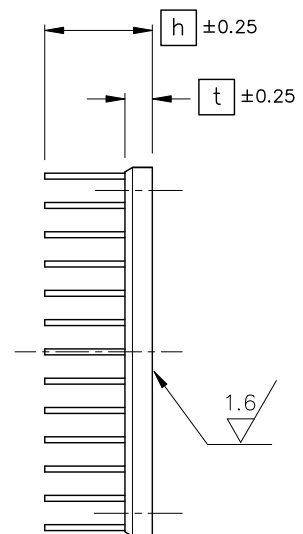
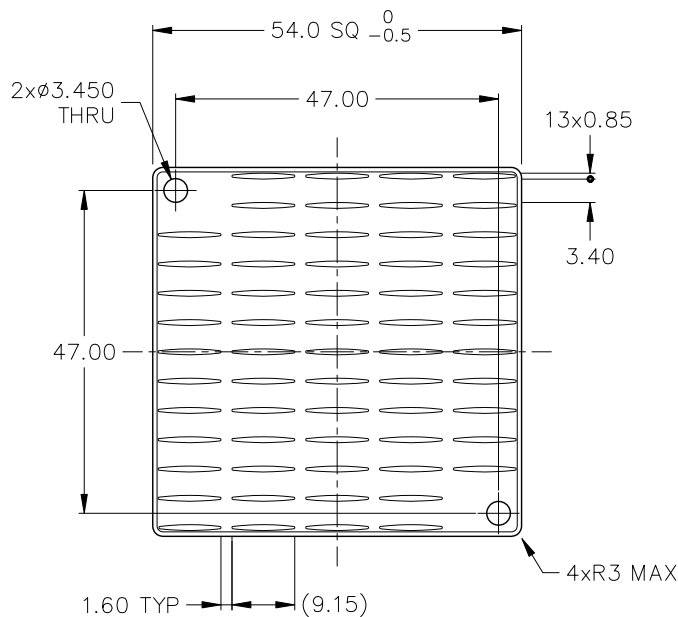
ALPHA

Low Pressure Drop Heat Sink with attachment holes

LPDH 54



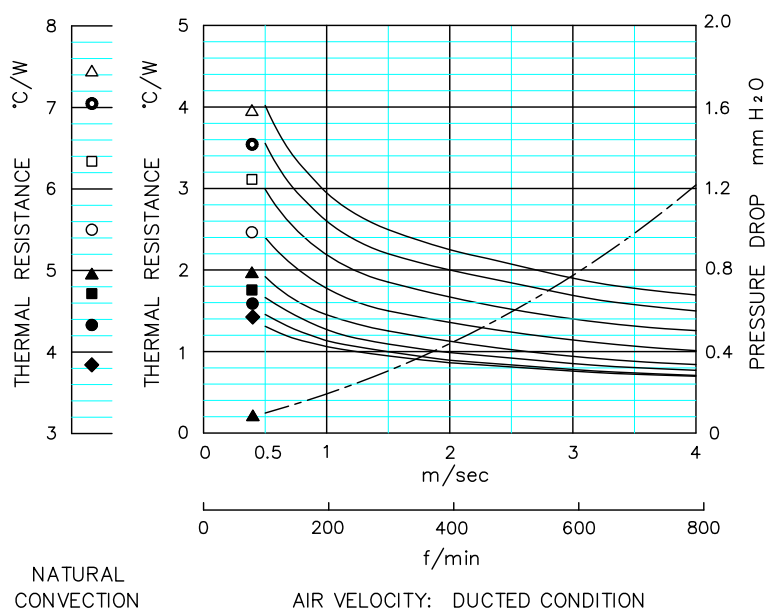
DIM



MODEL	HEIGHT [h]	THICKNESS [t]	WEIGHT(g)
LPDH54-10BP	10	3.0	30.0
LPDH54-12BP	12		32.0
LPDH54-15BP	15		41.8
LPDH54-20BP	20	4.0	46.8
LPDH54-25BP	25		51.8
LPDH54-30BP	30		57.4
LPDH54-35BP	35		62.5
LPDH54-40BP	40		67.5

MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

DATA



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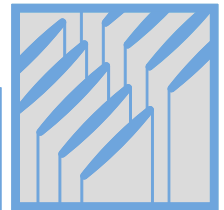
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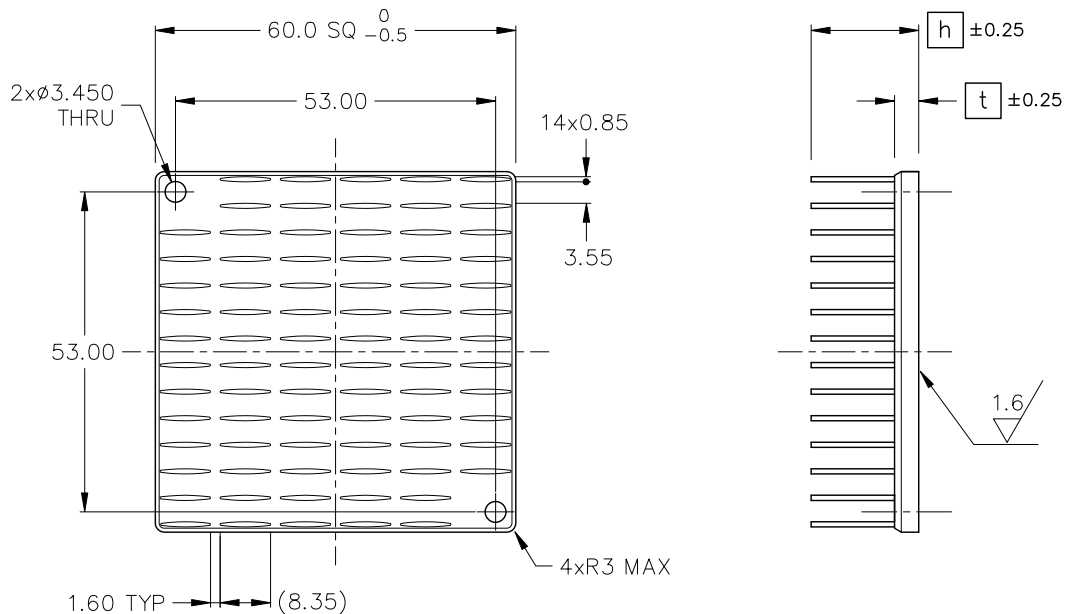
ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDH 60



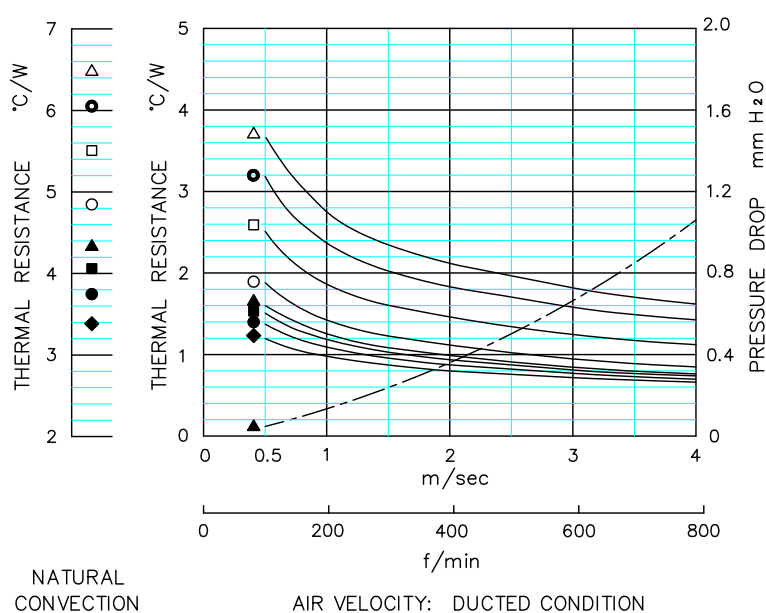
DIM



MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDH60-10BP	10	3.0	36.8
LPDH60-12BP	12		39.2
LPDH60-15BP	15		51.2
LPDH60-20BP	20	4.0	57.3
LPDH60-25BP	25		63.3
LPDH60-30BP	30		69.9
LPDH60-35BP	35		76.0
LPDH60-40BP	40		82.0

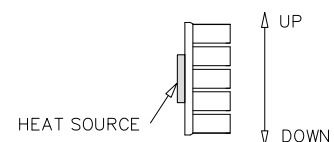
MATERIAL : A 6063
 FINISH : BLACK ANODIZE
 DIMENSIONS : mm

DATA



- △ LPDH60-10BP
- LPDH60-12BP
- LPDH60-15BP
- LPDH60-20BP
- ▲ LPDH60-25BP
- LPDH60-30BP
- LPDH60-35BP
- ◆ LPDH60-40BP

- DUCTED CONDITION
- DUMMY HEATER SIZE: 12.7 SQ
- PRESURE RESISTANCE
- PRESURE DROP
- NATURAL CONVECTION
- DUMMY HEATER SIZE: 12.7 SQ
- DISSIPATED POWER: 8.0(W)



NOTE ORIENTATION OF HEAT SINK USED FOR NATURAL CONVECTION TESTING

- BASED ON ALPHA'S STANDARD TEST PROCEDURE.
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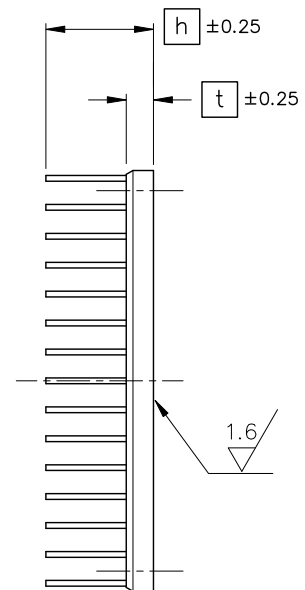
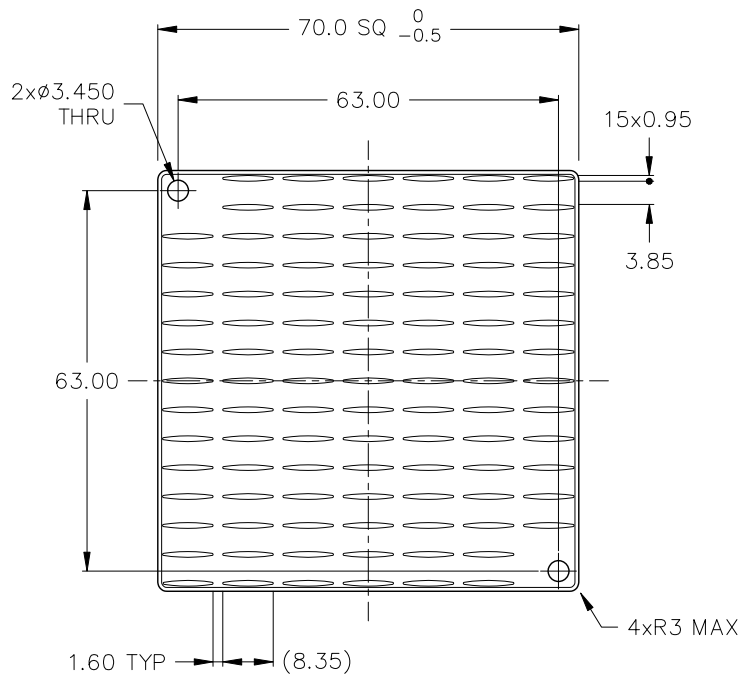
ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDH 70



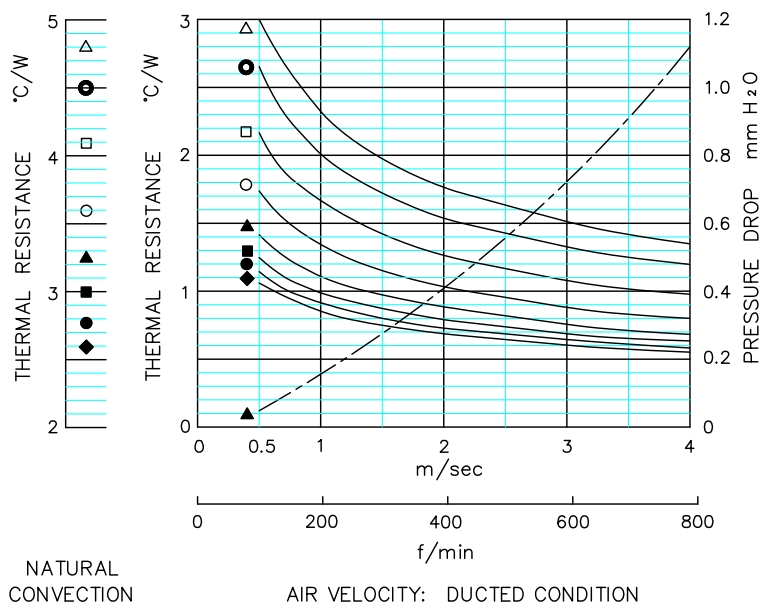
DIM



MODEL	HEIGHT h	THICKNESS t	WEIGHT(g)
LPDH70-10BP	10	3.0	52.0
LPDH70-12BP	12		62.6
LPDH70-15BP	15		70.9
LPDH70-20BP	20	4.0	78.8
LPDH70-25BP	25		86.8
LPDH70-30BP	30		97.7
LPDH70-35BP	35		106.4
LPDH70-40BP	40		115.2

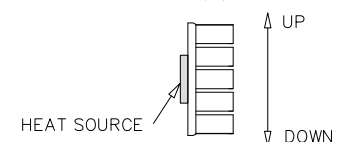
MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

DATA



- △ LPDH70-10BP
- LPDH70-12BP
- LPDH70-15BP
- LPDH70-20BP
- ▲ LPDH70-25BP
- LPDH70-30BP
- LPDH70-35BP
- ◆ LPDH70-40BP

- DUCTED CONDITION
DUMMY HEATER SIZE: 12.7 SQ
THERMAL RESISTANCE _____
PRESSURE DROP - - - - -
- NATURAL CONVECTION
DUMMY HEATER SIZE: 12.7 SQ
DISSIPATED POWER: 8.0(W)



NOTE ORIENTATION OF HEAT SINK USED FOR NATURAL CONVECTION TESTING

- BASED ON ALPHA'S STANDARD TEST PROCEDURE.
REFER TO TECHNICAL INFORMATION.

Alpha Company Ltd.

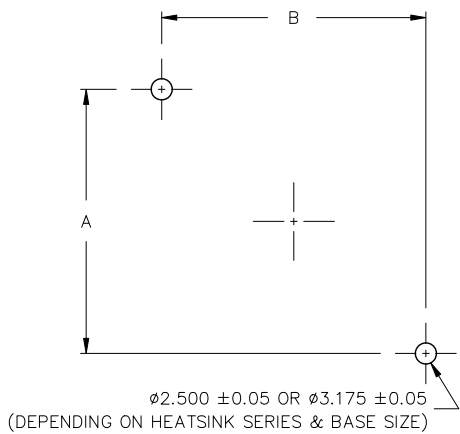
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PCB HOLE LAYOUT

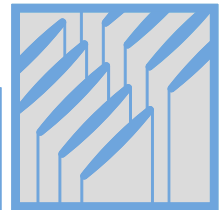


LPDH25, UBH25, ZH25	18.0	18.0
LPDH30, UBH30, ZH30	23.0	23.0
LPDH35, UBH35, ZH35	28.0	28.0
LPDH40, UBH40, ZH40	33.0	33.0
LPDH45, UBH45, ZH45	38.0	38.0
LPDH50, UBH50, ZH50, FFH50	43.0	43.0
LPDH54, UBH54, ZH54, FFH54	47.0	47.0
LPDH60, UBH60, ZH60	53.0	53.0
LPDH70, UBH70	63.0	63.0
MODEL	A	B

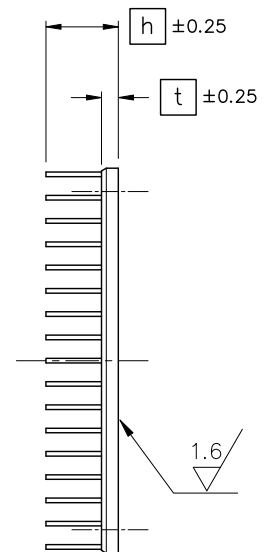
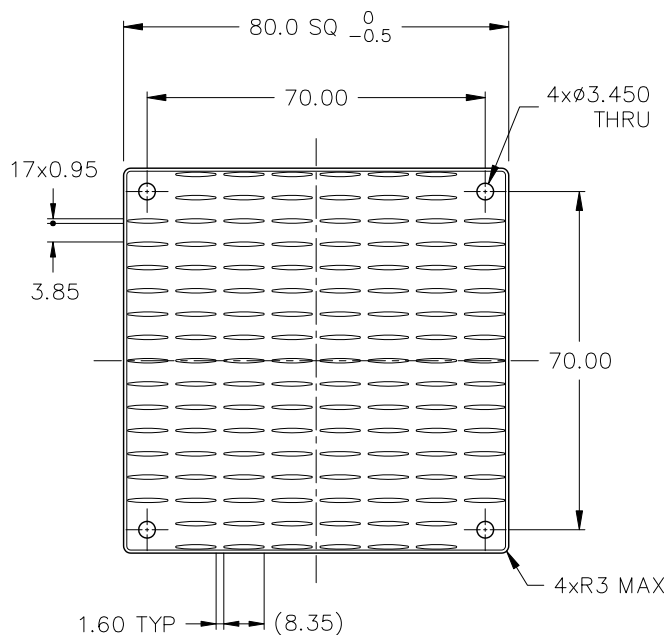
ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDP 80



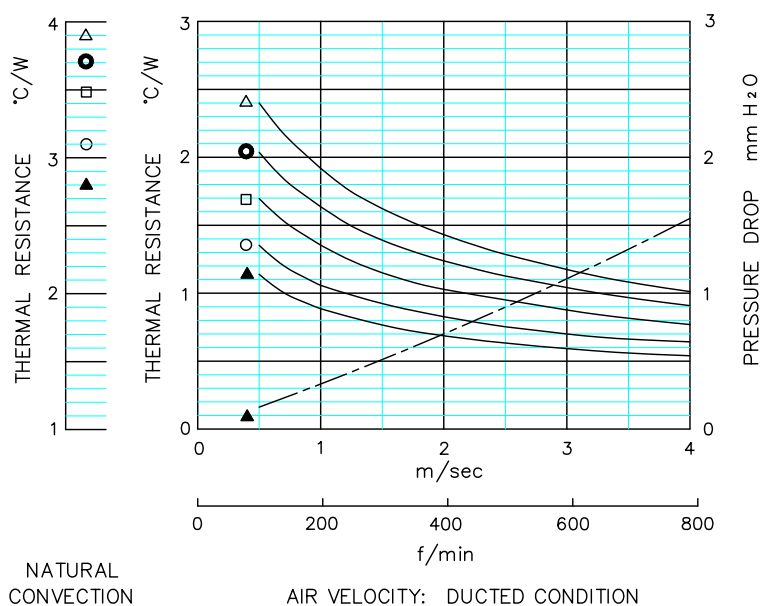
DIM



MODEL	HEIGHT [h]	THICKNESS [t]	WEIGHT(g)
LPDP80-10B	10	3.5	75
LPDP80-12B	12		79
LPDP80-15B	15		86
LPDP80-20B	20	5.0	119
LPDP80-25B	25		131

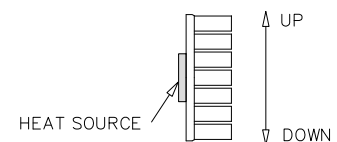
MATERIAL : A 6063
FINISH : BLACK ANODIZE
DIMENSIONS : mm

DATA



- △ LPDP80-10B
- LPDP80-12B
- LPDP80-15B
- ◇ LPDP80-20B
- ★ LPDP80-25B

- DUCTED CONDITION
DUMMY HEATER SIZE: 25.4 SQ
THERMAL RESISTANCE ———
PRESSURE DROP - - - - -
- NATURAL CONVECTION
DUMMY HEATER SIZE: 25.4 SQ
DISSIPATED POWER: 14.5(W)



NOTE ORIENTATION OF HEAT SINK USED FOR NATURAL CONVECTION TESTING

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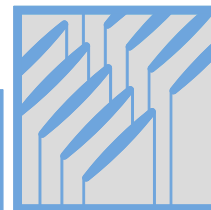
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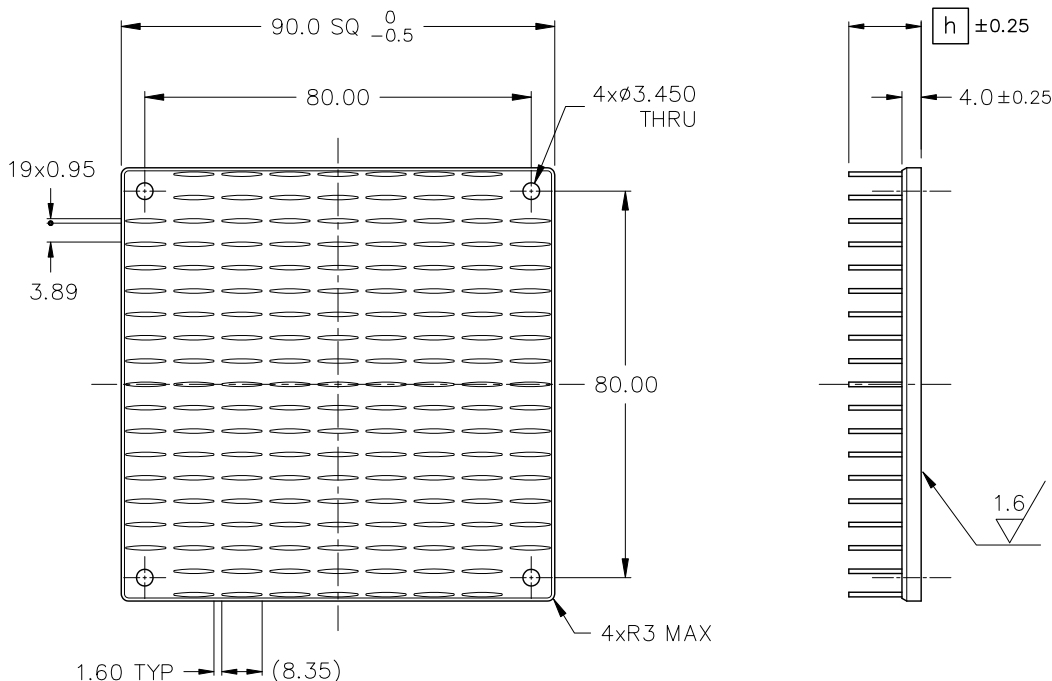
ALPHA

Low Pressure Drop Heat Sink
with attachment holes

LPDP 90



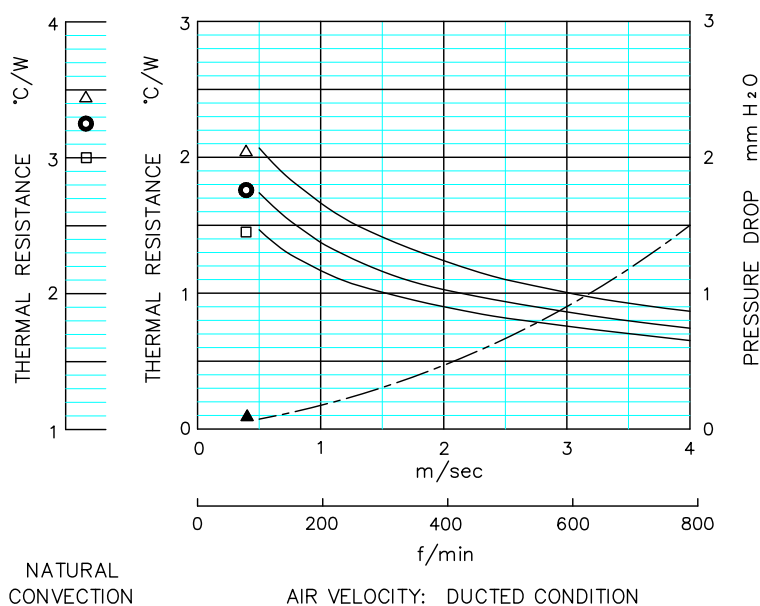
DIM



MODEL	HEIGHT h	WEIGHT(g)
LPDP90-10B	10	104
LPDP90-12B	12	109
LPDP90-15B	15	118

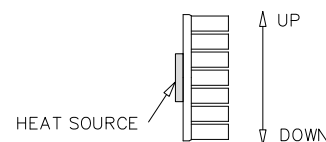
MATERIAL : A 6063
 FINISH : BLACK ANODIZE
 DIMENSIONS : mm

DATA



△ LPDP90-10B
 ● LPDP90-12B
 □ LPDP90-15B

● DUCTED CONDITION
 DUMMY HEATER SIZE: 25.4 SQ
 THERMAL RESISTANCE ———
 PRESURE DROP - - -
 ● NATURAL CONVECTION
 DUMMY HEATER SIZE: 25.4 SQ
 DISSIPATED POWER: 15.5(W)



NOTE ORIENTATION OF HEAT SINK USED FOR NATURAL CONVECTION TESTING

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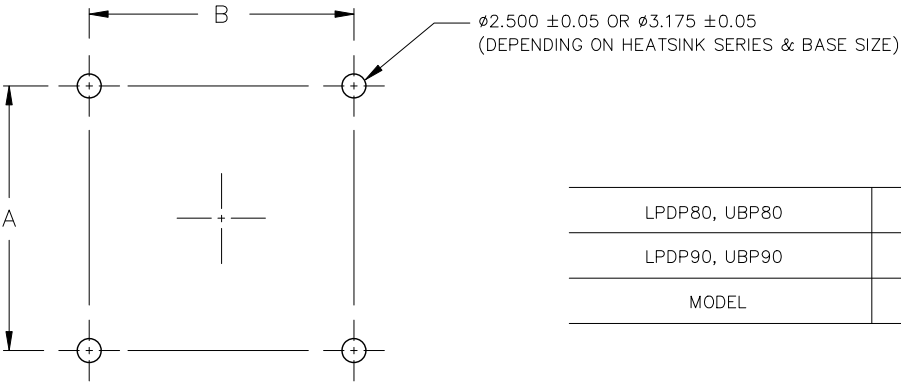
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REF



PCB HOLE LAYOUT



LPDP80, UBP80	70.0	70.0
LPDP90, UBP90	80.0	80.0
MODEL	A	B