Features	Training-Test	MSE	MAE	RMSE
Baseline	70-30	0.00101	0.02319	0.03186
	80-20	0.00072	0.01890	0.02695
	75-25	0.00065	0.01777	0.02557
	custom	0.00069	0.01821	0.02638
Dropout	70-30	0.00200	0.03259	0.04479
	80-20	0.00113	0.02430	0.03375
	75-25	0.00102	0.02286	0.03198
	custom	0.00091	0.02102	0.03030
Regularizers	70-30	0.00099	0.02440	0.03155
	80-20	0.00095	0.02189	0.03092
	75-25	0.00089	0.02196	0.02984
	custom	0.00101	0.02264	0.03184
Both	70-30	0.00271	0.03846	0.05214
	80-20	0.00319	0.04059	0.05650
	75-25	0.00300	0.03882	0.05483
	custom	0.00306	0.03969	0.05536

Model Type	MSE	MAE	RMSE
MLP	0.00077	0.01922	0.02775
CNN	0.00077	0.01981	0.02790
LSTM	0.00072	0.01899	0.02696
GRU	0.00069	0.01808	0.02627
BiLSTM	0.00079	0.01955	0.02825
BiGRU	0.00078	0.01933	0.02805
CNN LSTM	0.00076	0.01924	0.02772
CNN GRU	0.00077	0.01949	0.02774
CNN BiLSTM	0.00074	0.01912	0.02722
CNN BiGRU	0.00077	0.01941	0.02786
LSTM GRU	0.00069	0.01837	0.02634
CNN LSTM GRU	0.00081	0.02055	0.02855

Model Type	MSE	MAE	RMSE
MLP	0.00081	0.02005	0.02853
CNN	0.00236	0.03621	0.04866
LSTM	0.00100	0.02264	0.03167
GRU	0.00093	0.02108	0.03063
BiLSTM	0.00129	0.02595	0.03597
BiGRU	0.00114	0.02443	0.03384
CNN LSTM	0.00215	0.03267	0.04639
CNN GRU	0.00184	0.03061	0.04300
CNN BiLSTM	0.00186	0.03077	0.04316
CNN BiGRU	0.00141	0.02663	0.03763
LSTM GRU	0.00171	0.02911	0.04137
CNN LSTM GRU	0.00187	0.02969	0.04327

Model Type	MSE	MAE	RMSE
MLP	0.00088	0.02101	0.02981
CNN	0.00102	0.02243	0.03199
LSTM	0.00135	0.02664	0.03679
GRU	0.00074	0.01872	0.02726
BiLSTM	0.00180	0.03038	0.04245
BiGRU	0.00099	0.02234	0.03151
CNN LSTM	0.00221	0.03309	0.04703
CNN GRU	0.00118	0.02478	0.03442
CNN BiLSTM	0.00431	0.04836	0.06570
CNN BiGRU	0.00143	0.02706	0.03782
LSTM GRU	0.00840	0.07099	0.09167
CNN LSTM GRU	0.01289	0.09028	0.11356

Model Type	MSE	MAE	RMSE
MLP	0.00153	0.03049	0.03922
CNN	0.00349	0.04515	0.05912
LSTM	0.00399	0.04363	0.06321
GRU	0.00201	0.03179	0.04493
BiLSTM	0.00270	0.03632	0.05204
BiGRU	0.00226	0.03453	0.04756
CNN LSTM	0.01098	0.08009	0.10480
CNN GRU	0.00763	0.06662	0.08737
CNN BiLSTM	0.00516	0.05334	0.07185
CNN BiGRU	0.00692	0.06420	0.08319
LSTM GRU	0.00905	0.07588	0.09518
CNN LSTM GRU	0.01561	0.09848	0.12496

Layer Type	Properties
Dense	Units=128, Activation=tanh, Input_shape=(num_steps,)
Dense	Units=128, Activation=tanh
Dense	Units=128, Activation=tanh
Dense	Units=128, Activation=tanh
Dense	Units=128, Activation=tanh
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1)
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
Flatten	N/A
Dense	Units=1

Layer Type	Properties
LSTM	Units=128, Activation=ReLU, Input_shape=(num_steps, 1)
LSTM	Units=128
LSTM	Units=128
LSTM	Units=128
LSTM	Units=128
Dense	Units=1

Layer Type	Properties
GRU	Units=128, Activation=ReLU, Input_shape=(num_steps, 1)
GRU	Units=128
GRU	Units=128
GRU	Units=128
GRU	Units=128
Dense	Units=1

Layer Type	Properties
LSTM (Bidirectional)	Units=128, Activation=ReLU, Input_shape=(num_steps, 1)
LSTM (Bidirectional)	Units=128
LSTM (Bidirectional)	Units=128
LSTM (Bidirectional)	Units=128
LSTM (Bidirectional)	Units=128,
Dense	Units=1

Layer Type	Properties
GRU (Bidirectional)	Units=128, Activation=ReLU, Input_shape=(num_steps, 1)
GRU (Bidirectional)	Units=128
GRU (Bidirectional)	Units=128
GRU (Bidirectional)	Units=128
GRU (Bidirectional)	Units=128
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1)
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
LSTM	Units=128, Activation=ReLU
LSTM	Units=128
LSTM	Units=128
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1)
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
GRU	Units=128, Activation=ReLU
GRU	Units=128
GRU	Units=128
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1)
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
LSTM (Bidirectional)	Units=128, Activation=ReLU
LSTM (Bidirectional)	Units=128
LSTM (Bidirectional)	Units=128
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1)
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
GRU (Bidirectional)	Units=128, Activation=ReLU
GRU (Bidirectional)	Units=128
GRU (Bidirectional)	Units=128
Flatten	N/A
Dense	Units=1

Layer Type	Properties
LSTM	Units=128, Activation=ReLU, Input_shape=(num_steps, 1)
LSTM	Units=128
LSTM	Units=128
GRU	Units=128, Activation=ReLU
GRU	Units=128
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1)
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
LSTM	Units=128, Activation=ReLU
LSTM	Units=128
LSTM	Units=128
GRU	Units=128, Activation=ReLU
GRU	Units=128
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Dense	Units=128, Activation=tanh, Input_shape=(num_steps,), Dropout=0.2
Dense	Units=128, Activation=tanh, Dropout=0.2
Dense	Units=128, Activation=tanh, Dropout=0.2
Dense	Units=128, Activation=tanh, Dropout=0.2
Dense	Units=128, Activation=tanh, Dropout=0.2
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
Flatten	N/A
Dense	Units=1

Layer Type	Properties
LSTM	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Dropout=0.2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
Dense	Units=1

Layer Type	Properties
GRU	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Dropout=0.2
GRU	Units=128, Dropout=0.2
GRU	Units=128, Dropout=0.2
GRU	Units=128, Dropout=0.2
GRU	Units=128, Dropout=0.2
Dense	Units=1

Layer Type	Properties
LSTM (Bidirectional)	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Dropout=0.2
LSTM (Bidirectional)	Units=128, Dropout=0.2
LSTM (Bidirectional)	Units=128, Dropout=0.2
LSTM (Bidirectional)	Units=128, Dropout=0.2
LSTM (Bidirectional)	Units=128,, Dropout=0.2
Dense	Units=1

Layer Type	Properties
GRU (Bidirectional)	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Dropout=0.2
GRU (Bidirectional)	Units=128, Dropout=0.2
GRU (Bidirectional)	Units=128, Dropout=0.2
GRU (Bidirectional)	Units=128, Dropout=0.2
GRU (Bidirectional)	Units=128, Dropout=0.2
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
LSTM	Units=128, Activation=ReLU, Dropout=0.2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
GRU	Units=128, Activation=ReLU, Dropout=0.2
GRU	Units=128, Dropout=0.2
GRU	Units=128, Dropout=0.2
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
LSTM (Bidirectional)	Units=128, Activation=ReLU, Dropout=0.2
LSTM (Bidirectional)	Units=128, Dropout=0.2
LSTM (Bidirectional)	Units=128, Dropout=0.2
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
GRU (Bidirectional)	Units=128, Activation=ReLU, Dropout=0.2
GRU (Bidirectional)	Units=128, Dropout=0.2
GRU (Bidirectional)	Units=128, Dropout=0.2
Flatten	N/A
Dense	Units=1

Layer Type	Properties
LSTM	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Dropout=0.2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
GRU	Units=128, Activation=ReLU, Dropout=0.2
GRU	Units=128, Dropout=0.2
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
LSTM	Units=128, Activation=ReLU, Dropout=0.2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
GRU	Units=128, Activation=ReLU, Dropout=0.2
GRU	Units=128, Dropout=0.2
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Dense	Units=128, Activation=tanh, Input_shape=(num_steps,), Regularizer=L1_L2
Dense	Units=128, Activation=tanh
Dense	Units=128, Activation=tanh
Dense	Units=128, Activation=tanh
Dense	Units=128, Activation=tanh
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
Flatten	N/A
Dense	Units=1

Layer Type	Properties
LSTM	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Regularizer=L1_L2
LSTM	Units=128
LSTM	Units=128
LSTM	Units=128
LSTM	Units=128
Dense	Units=1

Layer Type	Properties
GRU	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Regularizer=L1_L2
GRU	Units=128
GRU	Units=128
GRU	Units=128
GRU	Units=128
Dense	Units=1

Layer Type	Properties
LSTM (Bidirectional)	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Regularizer=L1_L2
LSTM (Bidirectional)	Units=128
LSTM (Bidirectional)	Units=128
LSTM (Bidirectional)	Units=128
LSTM (Bidirectional)	Units=128,
Dense	Units=1

Layer Type	Properties
GRU (Bidirectional)	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Regularizer=L1_L2
GRU (Bidirectional)	Units=128
GRU (Bidirectional)	Units=128
GRU (Bidirectional)	Units=128
GRU (Bidirectional)	Units=128
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
LSTM	Units=128, Activation=ReLU
LSTM	Units=128
LSTM	Units=128
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
GRU	Units=128, Activation=ReLU
GRU	Units=128
GRU	Units=128
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
LSTM (Bidirectional)	Units=128, Activation=ReLU
LSTM (Bidirectional)	Units=128
LSTM (Bidirectional)	Units=128
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
GRU (Bidirectional)	Units=128, Activation=ReLU
GRU (Bidirectional)	Units=128
GRU (Bidirectional)	Units=128
Flatten	N/A
Dense	Units=1

Layer Type	Properties
LSTM	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Regularizer=L1_L2
LSTM	Units=128
LSTM	Units=128
GRU	Units=128, Activation=ReLU
GRU	Units=128
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3
Conv1D	Filters=30, Kernel_size=3
AveragePooling1D	N/A
LSTM	Units=128, Activation=ReLU
LSTM	Units=128
LSTM	Units=128
GRU	Units=128, Activation=ReLU
GRU	Units=128
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Dense	Units=128, Activation=tanh, Input_shape=(num_steps,), Dropout=0.2, Regularizer=L1_L2
Dense	Units=128, Activation=tanh, Dropout=0.2
Dense	Units=128, Activation=tanh, Dropout=0.2
Dense	Units=128, Activation=tanh, Dropout=0.2
Dense	Units=128, Activation=tanh, Dropout=0.2
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout=0.2, Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
Flatten	N/A
Dense	Units=1

Layer Type	Properties
LSTM	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Dropout=0.2, Regularizer=L1_L2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
Dense	Units=1

Layer Type	Properties
GRU	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Dropout=0.2, Regularizer=L1_L2
GRU	Units=128, Dropout=0.2
GRU	Units=128, Dropout=0.2
GRU	Units=128, Dropout=0.2
GRU	Units=128, Dropout=0.2
Dense	Units=1

Layer Type	Properties
LSTM (Bidirectional)	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Dropout=0.2, Regularizer=L1_L2
LSTM (Bidirectional)	Units=128, Dropout=0.2
LSTM (Bidirectional)	Units=128, Dropout=0.2
LSTM (Bidirectional)	Units=128, Dropout=0.2
LSTM (Bidirectional)	Units=128,, Dropout=0.2
Dense	Units=1

Layer Type	Properties
GRU (Bidirectional)	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Dropout=0.2, Regularizer=L1_L2
GRU (Bidirectional)	Units=128, Dropout=0.2
GRU (Bidirectional)	Units=128, Dropout=0.2
GRU (Bidirectional)	Units=128, Dropout=0.2
GRU (Bidirectional)	Units=128, Dropout=0.2
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout, Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
LSTM	Units=128, Activation=ReLU, Dropout=0.2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout=0.2, Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
GRU	Units=128, Activation=ReLU, Dropout=0.2
GRU	Units=128, Dropout=0.2
GRU	Units=128, Dropout=0.2
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout=0.2, Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
LSTM (Bidirectional)	Units=128, Activation=ReLU, Dropout=0.2
LSTM (Bidirectional)	Units=128, Dropout=0.2
LSTM (Bidirectional)	Units=128, Dropout=0.2
Flatten	N/A
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout=0.2, Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
GRU (Bidirectional)	Units=128, Activation=ReLU, Dropout=0.2
GRU (Bidirectional)	Units=128, Dropout=0.2
GRU (Bidirectional)	Units=128, Dropout=0.2
Flatten	N/A
Dense	Units=1

Layer Type	Properties
LSTM	Units=128, Activation=ReLU, Input_shape=(num_steps, 1), Dropout=0.2, Regularizer=L1_L2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
GRU	Units=128, Activation=ReLU, Dropout=0.2
GRU	Units=128, Dropout=0.2
Dense	Units=1

Layer Type	Properties
Conv1D	Filters=30, Kernel_size=3, Activation=ReLU, input_shape=(num_steps, 1), Dropout=0.2, Regularizer=L1_L2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
Conv1D	Filters=30, Kernel_size=3, Dropout=0.2
AveragePooling1D	N/A
LSTM	Units=128, Activation=ReLU, Dropout=0.2
LSTM	Units=128, Dropout=0.2
LSTM	Units=128, Dropout=0.2
GRU	Units=128, Activation=ReLU, Dropout=0.2
GRU	Units=128, Dropout=0.2
Flatten	N/A
Dense	Units=1