This is thermal images (IRT) dataset in the context of condition monitoring of electrical equipment--Induction Motors. All artificial generated defects are internal faults and depend on neither external pieces nor failure in initial setup components. For the induction motor, 8 different cases of short circuit failures in the stator windings, stuck rotor fault, and cooling fan failure are taken into account Thermal image acquisition is done at the workbench by a Dali-tech T4/T8 infrared thermal image camera at an Electrical Machines Laboratory at the environment temperature of 23°.

To pave the way for future research or testing AI systems, the IR-image dataset has been developed and it has been made publicly available for use by researchers in this field. Regarding the reservation of the BNUT rights, referencing this page--doi--is a desideratum.

Table 1. Equipment specifications

Induction Motor	
Phase	Y_3
Power	1.1KW
Voltage	220/380V
Input Current	5A
Speed	2800RPM
Frequency	50Hz

Table. Thermal camera properties

Dali-tech T8 TIC	
Detector resolution	384*288
Measurement accuracy	±2°C or ±2% (of reading, which is greater)
Imaging NETD	≤ 0.04°C@30°C
Measuring range	-20°C- +650°C
Imaging Frame Rate	50/60Hz

Table 3. Image counts for different conditions of Induction Motor. The num%-stator indicates the rate of short-circuit in each phase. The num-phase also indicates the number of phases in which the short-circuit occurred

Cooling	Rotor	50%-stator		30%-stator			10%-stator			Healthy
		2-Phase	1-Phase	3-Phase	2-Phase	1-Phase	3-Phase	2-Phase	1-Phase	
28	30	38	35	42	38	37	31	31	34	25
Total of 369 images										